GLENCORE

Strengthening
our performance

Sustainability Report 2021

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Our purpose

Responsibly sourcing the commodities that advance everyday life

→ Glencore.com

Welcome to Glencore's 2021 Sustainability Report. This report sets out our performance and progress across our sustainability material topics during the year.

It also includes our ESG data book and GRI Index 2021.

Further information on our sustainability activities is available at glencore.com/sustainability

Safety
We never compromise on safety. We look out for one another and stop work if it's not safe

Responsibility
We take responsibility for our actions. We talk and listen to others to understand what they expect from us. We work to improve our commercial, social, and environmental performance

Simplicity
We work efficiently and focus on what's important. We avoid unnecessary complexity and look for simple, pragmatic solutions

Integrity
We have the courage to do what's right, even when it's hard. We do what we say and treat each other fairly and with respect

Openness
We're honest and straightforward when we communicate. We push ourselves to improve by sharing information and encouraging dialogue and feedback

Entrepreneurialism
We encourage new ideas and quickly adapt to change. We're always looking for new opportunities to create value and find better and safer ways of working

Find out more
www.glencore.com/sustainability

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Our business at a glance

Where we operate

- ● Head Office
- ● Industrial assets
- ○ Marketing office/other

One of the world's largest natural resource companies

6 continents

35 countries

c135,000 employees and contractors

>40 offices

Integrating sustainability throughout our business

CO$_2$e Scope 1 and 2 location-based (Million tonnes)

25.7 ↑

2020: 24.2

CO$_2$e Scope 3 (Million tonnes)

254 ↓

2020: 271

Targeted reductions in total emissions

50% ↓

by 2035

Financial highlights

Adjusted EBITDA (US$ billion)

21.3

2020: 11.6

2021
2020
2019

Net income/(loss) attributable to equity holders (US$ billion)

5.0

2020: (1.9)

2021
2020
2019

Cash generated by operating activities before working capital changes, interest and tax (US$ billion)

16.7

2020: 8.3

2021
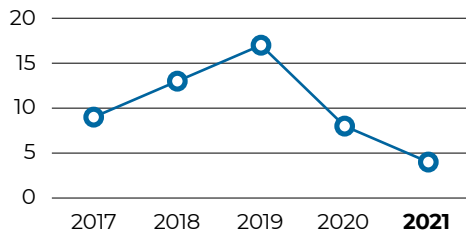2020
2019
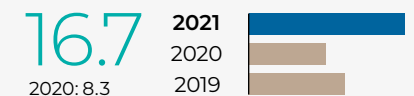
Performance dashboard[1]

We take our responsibilities to our people, to society and to the environment seriously, and align our activities with the relevant international standards.

Our business activities support the delivery of the United Nations Sustainable Development Goals agenda.
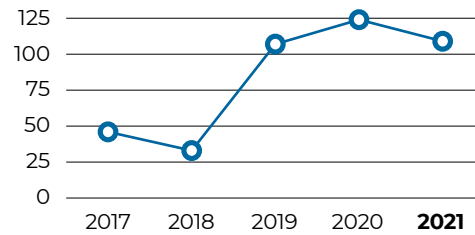
Fatalities
We are saddened to report the loss of four lives at our operations during 2021, compared to eight during 2020. All loss of life is unacceptable and we are determined to eliminate fatalities across our business.
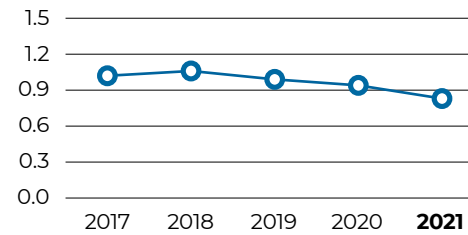
New occupational disease cases
We recorded a decrease in the number of new cases of occupational disease, 109 cases (2020: 124).
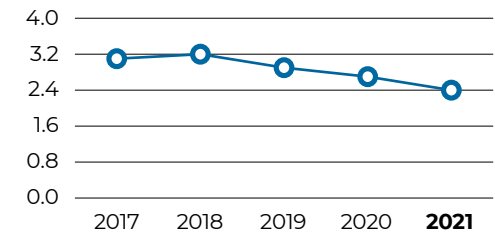
Lost time injury frequency rate (LTIFR) (per million hours worked)
During the year, our LTIFR was lower than the previous year at 0.83 (2020: 0.94).
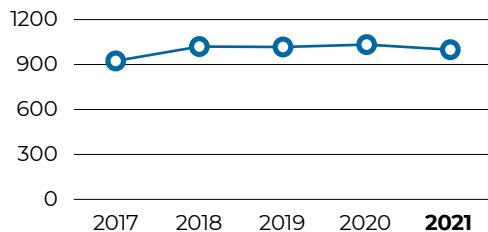
Total recordable injury frequency rate (TRIFR) (per million hours worked)
During the year, our TRIFR was lower than the previous year at 2.4 (2020: 2.7).

Water withdrawn[2] (million m^3)
In 2021, we withdrew 999 million m^3 of water (2020: 1,033 million m^3).

Total energy (petajoules)
Our total energy use was 178Pj (2020: 180Pj). Renewable energy sources delivered 13.4% of our total energy needs (2020: 13.3%).
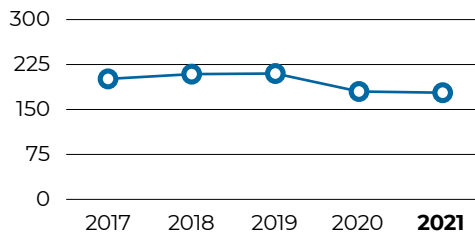
Total Scope 1, 2 – Location based and 3 (Mt GHG)
We are committed to reducing our total emissions (Scope 1, 2 and 3) by 15% by 2026 and 50% by 2035, both on 2019 levels. Post 2035, our ambition is to achieve net zero total emissions by 2050, with a supportive policy environment.
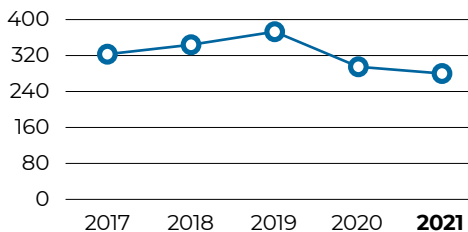
Community investment spend (US$ million)
In 2021, we spent $68 million on community investment programmes (2020: $95 million).
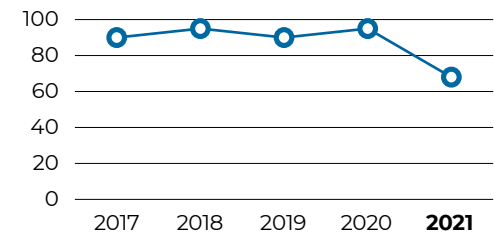
1   Selected sustainability key performance indicators (KPIs) are subject to external assurance and should be read alongside the Basis of Reporting that is available on glencore.com. The assurance statement can be found on page 133.
2   Water withdrawn includes precipitation directly or indirectly captured in our water dams and ponds, as well as precipitation that requires treatment ahead of discharge to meet applicable discharge limits.

Chair's introduction

Renewing the Board and progressing performance
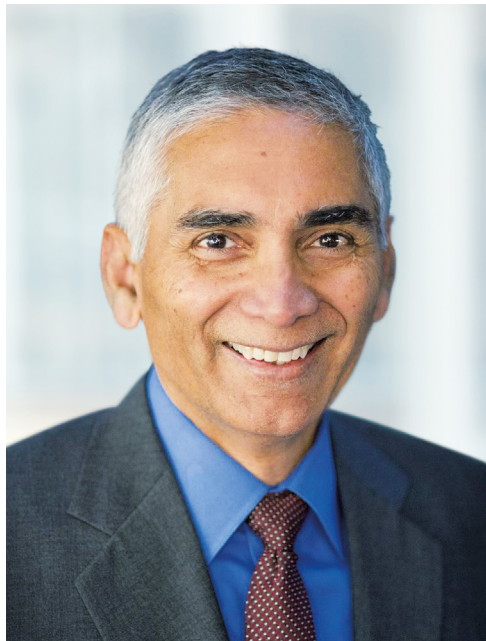
Dear Shareholder

I was honoured to be appointed as your Chairman last year and I am pleased to introduce Glencore's 2021 Sustainability Report. This report details our performance and activities during the year, and I am proud of the progress we have made across our material sustainability topics.

Strengthening our safety culture

Safety is our first priority. Our focus continues to be on ensuring that every person working at Glencore, employees and contractors, does not suffer any harm while present in our workplaces. While many of our industrial assets have been fatality free for multiple years, and we are seeing improvements in performance, it is unacceptable that four people lost their lives at our operations during 2021.

The Board oversaw the development and implementation of the revised SafeWork, our approach to eliminating fatalities. Safety expectations have been reset at our industrial assets and we are committed to maintaining a consistent approach to safety at all our sites.

Governance

During 2021, we completed the succession of our senior business management team with a new generation of leaders led by Gary Nagle, who replaced Ivan Glasenberg as Glencore's CEO.

We also continued our rejuvenation of the Board. Both Tony Hayward and John Mack retired during the year, and we were pleased to welcome Cynthia Carroll and David Wormsley.

Kalidas Madhavpeddi, Chairman

Both Cynthia and I joined Glencore's Board Health, Safety, Environment & Communities (HSEC) Committee, chaired by Peter Coates, with Patrice Merrin as the other member. During the year, the HSEC Committee approved and oversaw the roll out of five new Group Policies (Health and Safety, Environment, Social Performance, Human Rights and Tailings Storage Facility).

Engaging with Glencore's stakeholders

Following my appointment as Glencore's Chair in July, I have met many of our stakeholders. A key topic of our discussions has been our approach to climate change, particularly the alignment of our strategy with the goals of the Paris Agreement and how we are decarbonising our business.

We recognise that for many extractive companies Scope 3 emissions make up the largest proportion of total emissions. For Glencore, these emissions represent over 90% of our total carbon footprint. Including a reduction in Scope 3 emissions is essential for making a meaningful contribution to reducing global emissions. During 2021, we increased our engagement with our key equipment manufacturing suppliers and customers to improve our understanding of the emissions within our value chain.

The Board continues to oversee the delivery of our climate commitments, receiving regular progress and status updates from our new Climate Change Taskforce, made up of the senior management team.

Addressing geopolitical challenges

During the year, Glencore continued to respond to the global pandemic, which continued to present challenges to our business activities, our colleagues and their families. From the outset, our response to Covid-19 has been robust, identifying protocols to keep our workforce safe and supporting public health efforts in our operating jurisdictions.

As the restrictions imposed around the world begin to lift, we are maintaining our efforts to support our workers and communities as daily life begins to return to normal.

Like the rest of the world, I am saddened by the events that unfolded in late February as Russian military forces invaded Ukraine. While Glencore does not have any industrial assets in Ukraine or Russia, our thoughts are with those impacted at this difficult time. In addition to many of our employees making individual donations to various causes supporting the Ukrainian people, Glencore has donated US$7.5 million to humanitarian relief efforts.

In March 2022, in response to the impacts from the flooding across Queensland and New South Wales, Glencore donated AUD2 million to The Salvation Army's flood appeal, which will support relief and recovery efforts.

Our thoughts are with all those affected by these events.

Kalidas Madhavpeddi,
Chair
21 April 2022

Chief Executive Officer's review

Our approach to delivering a strong performance

I am pleased to introduce this year's Sustainability Report, which details the activities undertaken by the Glencore Group during 2021.

Russia's invasion of Ukraine in late February 2022, has impacted commodities in a manner unprecedented for recent times. It has placed a spotlight on the value chain for energy and metals. We condemn the actions taken by the Russian government against the people of Ukraine and apply the sanctions imposed by the US, the European Union, the UK and Switzerland against Russia. We will not enter into any new trading business in respect of Russian-origin commodities unless directed by the relevant government authorities.

We continue to closely monitor the ongoing crisis. Our thoughts are with the people of Ukraine, and our colleagues and their families across all affected regions.

Despite ongoing challenges from the global pandemic, 2021 was an extraordinary year for Glencore. Substantial recent underinvestment in supply capacity, and low inventory levels, were unable to efficiently respond to the rapid demand growth, significantly lifting commodity prices and enabling the Group to achieve a record Adjusted EBITDA.

In early 2022, we completed the acquisition of the Cerrejón coal asset in Colombia. Based on our long-term relationship with Cerrejón and knowledge of the asset, we strongly believe that acquiring full ownership was the right decision, with the progressive expiry of the current mining concessions by 2034, in line with our commitment to a responsibly operated managed decline of our coal portfolio.

Delivering a consistent approach to safety at all sites

Sadly, we experienced four fatalities in 2021. The health and safety of our people is our top priority and we believe all fatalities, serious injuries and occupational diseases are preventable.

Core to our approach is risk management, through which we systematically identify, assess, and manage health and safety hazards and credible risk scenarios associated with our operations. We expect every individual to take responsibility for their own safety and for the safety of their colleagues and the communities in which they work.

During the year, we relaunched our SafeWork framework based on our learnings from our industrial assets that were underperforming on safety. This revised approach simplifies and clarifies the core elements of SafeWork and has been designed to ensure a consistent safety culture across the Group.

Strengthening our climate governance

During 2021, we revised our internal climate change governance framework to drive implementation of our climate strategy and the supporting work programmes. Our new Climate Change Taskforce (CCT) is accountable to our Board of Directors to whom it provides regular progress and status updates. The Board continues to oversee the delivery of our climate commitments.

The CCT members include myself, our Chief Financial Officer, Head of Industrial Assets, and General Counsel, as well representatives from key corporate functions including investor relations, finance, and sustainable development. Commodity departments, including many leaders, participate in the working groups that support the CCT.

The CCT is responsible for overseeing our climate strategy and progress against our climate commitments. Our focus remains on reducing our total emissions footprint, including our Scope 3 emissions, which is critical for achieving the goals of the Paris Agreement.

During 2021, we progressed the increased identification of carbon abatement opportunities across the portfolio and significantly expanded our Marginal Abatement Cost Curve (MACC). We further assessed the impact of carbon prices on the industry cost structures across each of our major commodity businesses and incorporated the results into our resilience analysis.

Gary Nagle, Chief Executive Officer

Chief Executive Officer's review
continued

Rolling out our revised HSEC&HR governance framework

Through our HSEC&HR governance, policies, standards, procedures, and guidelines, we establish and implement ethical and consistent business practices and standards. These support our commitment to be a responsible and ethical operator and our aspiration to maintain our reputation for doing things the right way. We regularly review our framework to ensure it is meeting leading practice and stakeholder expectations.

During 2021, we rolled out Group-wide new and revised Group policies, and their supporting governance documents such as standards, procedures, and guidelines. We are tracking implementation progress through a gap analysis for each industrial asset and targeting substantial implementation by the end of 2023.

Implementing the new Global Tailings Standard

We rolled out our Tailings Management Framework, which sets out our approach to managing our tailings storage facilities (TSFs) and forms the basis of a tailings management system that aligns with the Global Industry Standard for Tailings Management (GISTM) requirements. Glencore has contributed to the GISTM through its participation in International Council on Mining and Metals (ICMM) led working groups.

We also progressed our reporting and auditing platforms to support implementation and conformance to the requirements of the GISTM. In line with GISTM's timeline, our TSFs with 'Extreme' or 'Very high' potential consequences will conform to its requirements by 5 August 2023. Our other TSFs not in a state of safe closure will meet GISTM's 5 August 2025 deadline.

Focus on ethics and compliance

We are committed to upholding a culture of ethics and compliance across our business.

During the year, we continued to cooperate extensively with the various authorities investigating Glencore and we presently expect to resolve the US, UK, and Brazilian investigations in 2022.

Considering what we have learned during the investigations, we have taken some remedial measures and have dedicated substantial resources over the last few years to upgrade and implement a best-in-class ethics and compliance programme.

This programme includes risk assessments, policies and procedures, training and awareness, monitoring, speaking openly and investigations. We work with experts to ensure our programme aligns with international best practice, taking guidance from relevant authorities.

To strengthen stakeholders' understanding of our approach, processes, and performance, we recently published a standalone Ethics and Compliance Report.

Governance

During 2021, we were pleased to have appointed Kalidas Madhavpeddi as Chairman of the Board and to welcome Cynthia Carroll and David Wormsley as new Independent Non-Executive Directors.

Kalidas has 40 years of experience in the international mining industry and will be a strong contributor in our efforts to achieving our objectives of delivering sustainable shareholder returns, playing a leading role in the green energy transition and securing our ambition of being a net zero total emissions company by 2050.

Going forward

Russia's invasion of Ukraine will have far reaching and long lasting impacts on commodity markets, including the likely realignment of commodity trade flows. This will take some time, with the immediate future marked by an environment of uncertainty.

Glencore's culture of entrepreneurialism stands our company in good stead to adapt to rapidly changing situations. The importance we place on responsible operations will continue to prioritise the wellbeing of our people, workplaces, and local communities. I have no doubt that through our work, we will continue to navigate the challenges ahead and focus on generating value for our stakeholders.

Gary Nagle,
Chief Executive Officer
21 April 2022

Our business model

Inputs and resources on which our business model depends:

Assets and natural resources
- Many long-life and high-quality assets
- Value over volume approach
- Embedded network and knowledge in Marketing operations

Our people and partners
- Established long-term relationships with customers and suppliers
- Major employer with c.135,000 people globally

Financial discipline
- Capital deployed in disciplined manner
- Marketing hedges out the majority of absolute price risk
- Marketing profitability driven by volume-driven activities and value-added services

Unique market knowledge
- Finding value at every stage in the commodity chain

Our industrial business spans the metals and energy markets, producing multiple commodities from over 65 assets

We move commodities from where they are plentiful to where they are needed

Recycling

Industrial business

Carbon solutions

Marketing business
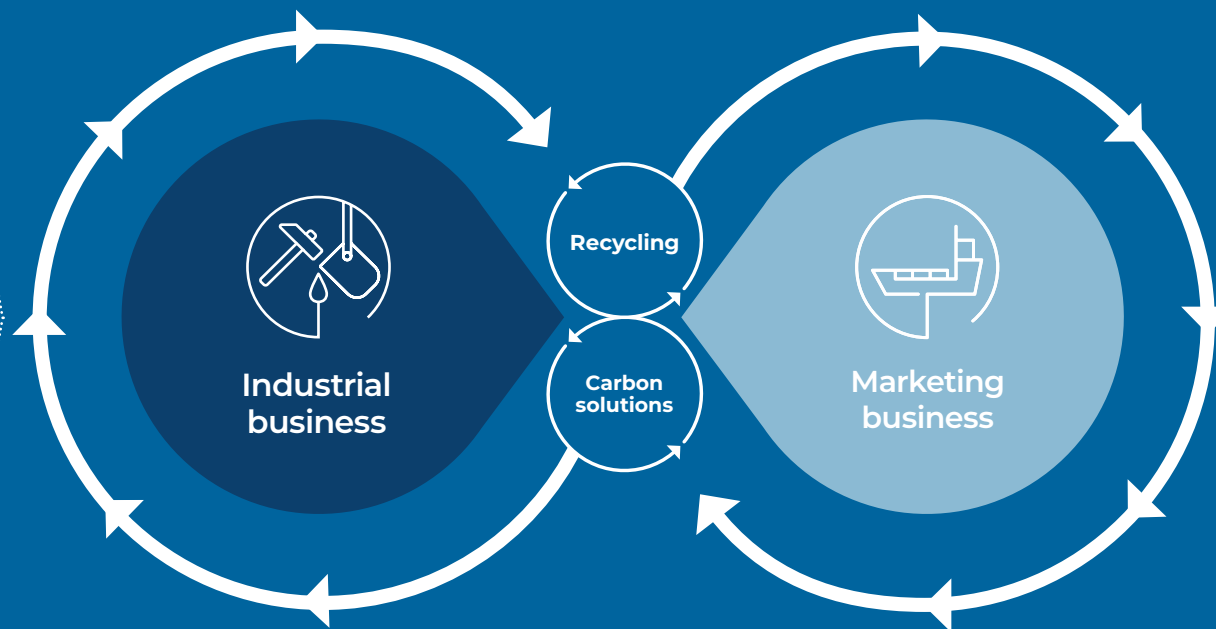
Outputs and impact on key stakeholders:

Investors

$21.3bn
2021 Adjusted EBITDA

$13.1bn
Equity free cash flow (FFO less net purchases of property, plant and equipment and dividends to minorities)

Our people

11%
Reduction in Total Recordable Injury Frequency Rate

Climate change

5%
Reduction in total emissions versus 2020

Payments to governments

$7.6bn

Our purpose
Responsibly sourcing the commodities that advance everyday life.

Our values
- Safety
- Responsibility
- Entrepreneurialism
- Integrity
- Openness
- Simplicity

Industrial business activities

Exploration, acquisition and development
We focus on brownfield opportunities, cost control and synergies.

Extraction and production
We diversify our product offering and have wide geographical presence.

Processing and refining
We optimise end products to suit a wider customer base.

Marketing business activities

Logistics and delivery
We fulfil customer orders and take advantage of demand and supply imbalances, aided by the scale of our network.

Blending and optimisation
We offer a wide range of product specifications, seeking to meet customer-specific requirements and provide a high-quality service.

Strategic priorities
- Responsible production and supply
- Responsible portfolio management
- Responsible product use.

Our strategy for a sustainable future

Aligned with our purpose, our portfolio enables the transition to a low-carbon economy, while meeting society's energy needs as it progresses through the transition.

Our Purpose

Responsibly sourcing the commodities that advance everyday life.

Strategic objective

To be a leader in enabling the decarbonisation of energy usage and help meet continued demand for the metals needed in everyday life, while responsibly meeting the energy needs of today.

Strategic priorities

Responsible production and supply

Our core values are embedded in everything we do. We are committed to operating ethically, responsibly, and to contributing to socioeconomic development in the countries where we operate.

We will continue to focus on reducing the carbon footprint of our operations and will allocate financial returns towards fulfilment of our business strategy.

Our commitment is delivered through our operational excellence, health and safety and ethics and compliance programmes, advancing our environmental performance, respecting human rights and by developing, maintaining and strengthening our relationships with all of our stakeholders.

Responsible portfolio management

We will prioritise investment in metals that support the decarbonisation of energy usage as well as help meet demand for metals needed in everyday life. We will also reduce our coal production in line with our various climate action commitments and the electrification and decarbonisation of energy systems.

Our capital allocation supports this strategy through the optimal balance of debt and equity, distributions to shareholders and business reinvestment in transition commodities and value accretive Scope 1+2 abatement opportunities that help achieve our climate commitments.

Responsible product use

A low-carbon future requires responsibly produced low-carbon metals. We will seek opportunities to increase the proportion of green metals we can supply to customers from our own operations and through our extensive marketing activities. Supporting this, we are scaling up our power and carbon trading teams to help provide carbon solutions for commodity supply chains as these markets evolve and mature.

We will participate in global efforts to improve abatement technologies and availability, as well as resource use efficiency by contributing to the circular economy.

Contributing to the circular economy

Progressing and delivering the goals of the Paris Agreement require intensive consumption of both primary and secondary metals and minerals. Glencore's presence at key stages of the value chains for both new and recycled commodities – production, refining, recycling, sourcing, marketing, and distribution – supports the energy transition necessary for global decarbonisation.

Currently, around the world, most consumption is linear. Natural commodities are taken from the ground, commodities are turned into products, and ultimately products are disposed of as waste. For global decarbonisation to take place, the world needs to move to a circular economy, that is one where economic activity is decoupled from the consumption of finite resources through eliminating waste by recirculating products and materials. A circular economy is underpinned by a transition to renewable materials and energy.

Establishing a circular economy requires a global commitment driven by government policy and supported by consumer behaviour. At the same time, the challenge of meeting the increasing energy needs of a growing global population, while drastically reducing the world's carbon footprint, will require the continued production of primary metals for the products and energy supply needed to respond to changes in population and growth of developing economies, as well as deliver the energy transition needed to achieve a low-carbon economy.

The world will need both to produce and refine new metals and minerals, and to increase recycling and recovery efficiencies to meet its low-carbon objectives. Our

production and sourcing of raw materials, together with our recycling business, make Glencore well positioned to contribute to supporting the delivery of the global transition to a lower-carbon economy, and meeting the growing demand for commodities.

To deliver the growing demand for commodities, we recognise that we must continue to manage our operational footprint in a responsible manner that delivers sustainable stakeholder benefits, while reducing our emissions footprint and continuing to meet our obligations to our customers.

Energy transition

As the world shifts away from fossil-based fuels to other sources of energy and governments and consumers begin to embrace renewable energy, energy storage, electric vehicles, and other decarbonising technologies, demand for the refined metals that enable these transitions is expected to keep growing exponentially.

We anticipate that the energy transition will be non-linear across time and geography. The global transition from fossil fuels to battery power will drive demand for metals such as copper, nickel, cobalt, vanadium, and zinc. Our industry-leading, large-scale, low-cost transition metals portfolio is uniquely positioned to provide the commodities core to the decarbonisation of the global economy. Our coal portfolio, while responsibly declining over time, will meet critical regional energy needs and affordability during this evolution.

Geopolitical events, such as Russia's invasion of Ukraine, place a spotlight on commodities' value chains. They contribute towards driving

smarter resource use and growing expectations for responsible operations during the extraction, refinement, and production of metals and minerals, particularly as many resources are located in challenging operational contexts. They are also strengthening governments' ambitions for energy independence through building domestic renewable power capabilities dependent on batteries to ensure baseload security.

We recognise our responsibilities as a large-scale industrial miner to produce products in a manner that protects the environment, respects human rights, and delivers lasting benefits to the stakeholders affected by our operations.

Committed to responsible production

Our approach supports the identification, prevention and mitigation of potentially adverse impacts that could negatively affect people, the environment, or company reputation. It seeks to ensure the responsible and ethical sourcing and production of the minerals and metals that we bring to market, while meeting external expectations and complying with regulations.

In addition to focusing on our own production, we also tackle systemic challenges affecting our value chains. For example, in the Democratic Republic of Congo (DRC), the source of 70% of the global supply of cobalt, we do not source any artisanal small-scale mining (ASM) material, but we do support the development of responsible ASM, working in partnership with others, such as the Fair Cobalt Alliance (FCA).

The FCA 's mission is to transform ASM in the DRC in a positive manner through eliminating child and forced labour, supporting the

professionalisation of ASM through the adoption of responsible mining practices, and identifying and supporting alternative livelihoods to help increase incomes and reduce poverty.

Developing and supplying low carbon products

We have spent decades developing a leading marketing business and expect it to continue to deliver healthy returns through leveraging market intelligence and identifying arbitrage opportunities.

As a vertically integrated extractive and marketing business, we can utilise our own carbon reduction efforts and market expertise to meet the increasing needs for attestable low-carbon products.

Our carbon desk supports the provision of synthetic and physical carbon-free products, ranging from green aluminium to carbon-free freight haulage, a value-add for our customers. Our marketing business' carbon strategy builds on our long-established market knowledge and opportunity identifying abilities to grow, adapt and respond to changing markets and demand for carbon solutions as the commodity supply chain evolves in response to decarbonisation.

Recycling

Achieving a low carbon economy will require offsetting the impact from product usage through changes to consumer behaviour, collaborations across the commodity value chain and delivering a circular economy. This highlights the need for education on reusing products and increasing recycling.

We strongly believe in the significant increased requirements for future recycling.

Contributing to the circular economy
continued

To achieve a circular economy, we need to see post-consumer materials as a resource, not as waste. Both legislation and responsible resource use is driving demand for secondary (recycled) metals.

Our in-house processing capacity provides the infrastructure to contribute to the objectives of a circular economy. We have over 75 years of experience in the recycling business and actively recycle copper, nickel, cobalt, zinc, and precious metals. By responsibly recycling these metals, we contribute to the circular economy, diverting materials from landfill and minimising environmental impacts.

As part of our net zero ambition in general, and with a goal to expanding our recycling footprint across the commodity complex, we are looking to invest in capacity expansions in our core markets of Europe and North America, and to enter new markets that currently lack formal and responsible recycling outlets for end-of-life materials. We are looking to significantly expand our role within recycling across the broader decarbonisation metals chain. There is increasing recognition of the need to increase the use of secondary metals, which our recycling business is well placed to meet.

Diverting metals from landfill
Our copper and electronic waste recycling business was one of the world's first and is North America's largest for end-of-life electronics. It is a market leader in the recovery of copper and precious metals from recyclable feeds.

Copper is vital to powering electrification and is also a relatively easily recyclable commodity that does not lose any of its properties during the recycling process. Recycling uses significantly less energy, 80%-90% less for copper for example, than mining and smelting primary metal. Scrap typically accounts for about a third of the roughly 30 million tonnes of annual global copper supplies, meaning that low carbon copper can be produced to fuel the energy transition.

During 2021, we recovered around 40,000 tonnes of copper, 77,000 ounces of gold, 1.4 million ounces of silver, 15,000 ounces of palladium, and 6,000 ounces of platinum from electronic scrap and other recycling feeds. We have recycled more than one million tonnes of circuit boards, wires, and other electronics and electrical components from discarded end-of-life devices since the 1990s.

In early 2022, we deepened our partnership with BritishVolt, when we announced a battery recycling joint venture. Recycling will take place at our Britannia Refined Metals (BRM) operation in the UK.

This project will enable recycling processes at BRM, while securing existing and creating new jobs. We expect the recycling plant to have a processing capacity of at least 10,000 tonnes of lithium-ion batteries per year, including, but not limited to, valuable battery manufacturing scrap, portable electronics batteries and full EV packs.

The facility is expected to be operational by mid-2023 with a long-term aim of being 100% powered by renewable energy. This joint venture leverages our multi-decade recycling experience across end-of-life materials.

A proven history of nickel recycling
By 2025, the International Energy Agency's global energy and emissions scenarios' Current Pathway, projects nickel demand increasing by 32% on 2019 levels. By 2035, the expected increase is for 135% more nickel, and in 2050, the Current Pathway shows nickel demand increasing to 250% above 2019 levels.

Our Integrated Nickel Operations process secondary feed including end-of-life materials, production scrap and waste streams. Today, we are one of the world's largest processors of secondary nickel and cobalt bearing materials, including super alloy scrap, battery materials, plating residues and spent catalysts.

We have recycled nickel and cobalt-containing scrap since 1990. Initially, we processed super-alloy scrap from the aerospace sector before expanding the catalogue of recycled feeds to include other forms of alloy scrap, battery scrap materials, plating residues and spent catalysts. These represent the same sectors, amongst others, where our primary nickel is allowing us to recover and refine the metals and reposition them back for reuse in the same application.

Since 2000, our operations have processed a significant portion of the nickel and cobalt containing scrap battery materials in North America and Europe in various forms and remain the main outlet outside of Asia for these materials.

We have been able to leverage our sales relationships to identify and secure secondary nickel and cobalt units and expand our recycled volumes.

In 2021, our nickel recycling business processed 17,900 tonnes of recycled material containing 4,400 tonnes of nickel, 1,500 tonnes of cobalt and 870 tonnes of copper.

We are seeing a steady increase in battery scrap feed volumes, predominantly in the form of production scrap from gigafactories as they ramp up to support the energy transition and EV vehicle roll-out. Typically, 10% of an EV's battery inputs will end up as scrap at the end of the production line.

As available volumes of battery scrap materials expand, we are progressing options to expand the recycling of nickel and cobalt containing battery materials at our existing operations, external facilities, plus future project options.

Sustainability governance

Our primary strategic objective is to be a leader in enabling decarbonisation of energy usage and transport, and to help meet continued demand for the metals needed in everyday life while responsibly meeting the energy needs of today.

Our sustainability strategy sets out our ambitions against four core pillars: health, safety, environment, and community and human rights (HSEC&HR) and drives positive change throughout our business. Each pillar has clearly defined strategic imperatives, objectives, policies, priority areas and targets. We review our approach annually to confirm that it continues to fulfil the needs of our business.

Governance of our Group sustainability strategy and framework rests with the Board's HSEC Committee, who sets the strategic direction for our sustainability activities and oversees the development and implementation of our strategic HSEC&HR programmes.

Oversight and ultimate responsibility for our Group sustainability strategy and framework and its implementation across the Group, rests with our senior management team, including the CEO and heads of our commodity departments. They take a hands-on approach to monitoring and managing sustainability activities around the Group.

Sustainability framework

Corporate strategy

1. **Responsible** production and supply

2. **Responsible** portfolio management

3. **Responsible** product use

Values

- Safety
- Integrity
- Responsibility
- Openness
- Simplicity
- Entrepreneurialism

Code of Conduct

Group sustainability strategy

Health
Become a leader in protecting and improving the wellness of our people and communities

Safety
Become a leader in safety and create a workplace free from fatalities and injuries

Environment
Become a leader in environmental performance

Community and human rights
Foster socio-economic resilient communities and respect human rights where we operate

Material topics

Material topics
- Internal and external materiality assessment process to identify material topics.
- Material topics are the focus of our sustainability strategy review and reporting.
- Operational activities focus on addressing and progressing the material topics.

Group HSEC&HR governance

Policies, Standards, Procedures, Guidelines

Metrics, reporting and assurance

Board HSEC Committee
has oversight and ultimate responsibility. It receives regular updates and has oversight of how our business is performing across all our internally defined, sustainability related material risk areas.

Performance in brief | Material topics | Additional Information

| Contents | At a glance | Performance dashboard | Chair's introduction | CEO review | Our strategy | Contributing to the circular economy | **Sustainability governance** | Stakeholder engagement | About this report |

Sustainability governance
continued

Strengthening our policy architecture

Through our HSEC&HR governance, policies, standards, procedures, and guidelines, we establish and implement ethical and consistent business practices and standards. These support our commitment to be a responsible and ethical operator and our aspiration to maintain our reputation for doing things the right way.

Our Group policies support the delivery of our Values and Code of Conduct, which together detail the behaviour and performance expectations for all employees working at our offices and industrial assets where we have operational control. Our assets tailor their implementation of Group policies to reflect local cultures, regional challenges and to leverage opportunities while meeting the expectations established by the policies.

In 2020, we initiated a cross-functional project to develop and implement a more streamlined and consistent approach to our Group policy architecture and the underlying policies, standards, procedures, and guidelines.

The project considered the commitments we are required to meet through our membership and support for external organisations such as the UN Global Compact, International Labour Organization Declaration on Fundamental Principles and Rights at Work, the UN Guiding Principles on Business and Human Rights, and the Voluntary Principles on Security and Human Rights. It also considered the ICMM's Performance Expectations.

Our HSEC&HR Governance Framework

POLICIES
- Health & Safety
- Environmental
- Social Performance
- Human Rights
- Tailings Storage Facility

FRAMEWORKS
- SafeWork
- Sustainability
- Tailings Storage Facility

STANDARDS

HSEC & Human Rights Management Standard

Health	Environment	Social Performance	Human Rights	Tailings Storage Facility and Dam Management
Fatal Hazard Protocols 1-13	Energy & Climate Change	Cultural Heritage	Security	
Structural Failure	Closure Planning			
Shafts & Winders	Loss of Containment			
Road Transportation Safety				
Aviation				
SafeWork Performance Expectations				

Sustainability governance
continued

During 2021, we conducted a Group-wide roll out of the new and revised Group policies. We also rolled out supporting governance documents, including new and revised standards, covering areas such as health, environment, social performance, and human rights, together with related procedures and guidelines. We are tracking implementation progress through a gap analysis for each industrial asset and targeting substantial implementation by the end of 2023.

Implementing ICMM's Performance Expectations

ICMM requires its company members to adhere to its Mining Principles, which include comprehensive ESG requirements, robust site-level validation of performance expectations and credible assurance of corporate sustainability reports with annual disclosure.

The Mining Principles comprise ten sustainable development principles and eight position statements that include specific commitments on issues ranging from biodiversity to water management, public reporting on performance and obtaining independent assurance that members meet the ICMM commitments.

ICMM expects its members to implement its Assurance and Validation Procedure for its Mining Principles for reporting periods starting on or after 1 January 2021. Robust, site-level validation and corporate assurance mechanisms are required to support implementation. Every three years, applicable industrial assets undergo self-assessment and prioritised industrial assets conduct third-party validation.

Company members are expected to disclose their progress in implementing the Performance Expectations, with reports on validation activities at industrial sites, commencing on an annual basis from the 2022 reporting period.

In preparation of this requirement, during 2021, we completed a self-assessment of the corporate level performance expectations and our industrial assets commenced self-assessments, which will continue during 2022. We are identifying the industrial assets that will be subject to third-party validation, which will comprise of robust site assurance processes, as well as comprehensive oversight and validation by our commodity department to validate the results efficiently.

We are on track to meet the ICMM's Performance Expectations' deadlines and we will be publishing our prioritisation and summary of self-assessments in 2022.

Stakeholder engagement

We actively support transparent and constructive stakeholder engagement and consultation. Stakeholder scrutiny supports the maintenance of the high standards of business conduct that is vital to our corporate culture and the long-term success of the Group.

We recognise that robust, respectful, and two-way relationships with our stakeholders are essential for our industrial assets to maintain their license to operate. Through building constructive and transparent relationships with our stakeholders, we can strengthen our approach locally and globally and improve our operating processes and performance.

Our stakeholders include our workforce, shareholders, suppliers, joint ventures, customers, governments and regulators, local communities, traditional authorities, non-governmental organisations, labour unions, civil society, media, and industry peers.

Our workforce and labour unions

Through developing and building a cohesive workplace culture that encourages our people to focus on the same goals, we can deliver our strategic priorities. We have a Group-wide internal communications programme for the relaunch of our SafeWork approach and the new HSEC Standards. We make our Raising Concerns platform available to our employees and contractors, and also to our external stakeholders. We uphold the right to freedom of association, to unionise and to collective representation, regardless of their location or duties. At many of our industrial assets, unions play an active role in safety committees. We take an honest and open approach to working with labour unions and undertake negotiations in good faith.

Key topics discussed in 2021:

- Covid-19
- Health, safety, and wellbeing
- Training, compensation, and career opportunities
- Company culture and reputation
- Negotiations of workplace agreements
- Industrial relations and potential site closures

Governments

We develop and maintain constructive relationships with national, regional, and local governments in the countries where we operate and maintain regular dialogue on all relevant issues. We do this through a variety of means that best reflect local context. Engagement activities may be individually, collectively with other companies or organisations, or as part of an industry association. When dealing with governments, we conduct ourselves in accordance with Glencore's Code of Conduct and our Political Engagement Policy and do not permit the use of our funds or resources as contributions to any political campaign, political party, political candidate or any such affiliated organisations.

Key topics discussed in 2021:

- Supporting government-led Covid-19 responses
- Tax and royalty payments
- Compliance with laws and regulations
- Local employment and procurement
- Operational environmental management, including tailings storage
- Climate change
- Socio-economic development projects
- Transparency and human rights
- Public health
- Security

Communities

Our asset-based community engagement teams build relationships with local communities and decision-making authorities. They meet and engage with the communities living around our operations to share information about our activities that may affect them, key risks, and control measures, and to help us understand their views and address any concerns raised. We adapt our approach to reflect the operational and cultural environment and it can include open-house sessions, formal engagements, face-to-face discussions, and local grievance mechanisms.

Key topics discussed in 2021:

- Local employment and procurement opportunities
- Socio-economic development projects
- Environmental management
- Operational impacts
- Potential industrial site closure
- Tailings storage facilities
- Security and its engagement with civil society
- Artisanal and small-scale mining in the DRC

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Stakeholder engagement
continued

Non-governmental organisations (NGOs) and civil society

We engage with NGOs, think tanks and business associations that share our interests and concerns. Topics of discussion include broad policy issues with a global or national reach, as well as local matters that affect the communities close to our operations. We welcome constructive feedback on our activities, and seek to engage with all our critics or, at the very least, respond to their concerns to increase understanding.

Financial community and media

We actively engage with our investors and financial institutions through regular communication, one-on-one meetings, roadshows, and Q&A sessions. We engage with the media at global, national, and local levels on topics of public interest. Our approach is one of transparency and timely communications to support fair disclosure.

Suppliers and customers

We maintain good relationships with our suppliers and customers, engaging regularly with them to understand their views, expectations, and perspectives. We undertake risk-based due diligence on our supply chain, both for the goods and services we procure and the third-party commodities we purchase. We are active in many industry initiatives, where we work to promote the safe use and handling of our products. We share the specifications of our products and any associated risks with our customers.

Peer companies

At both global and national levels, we engage with other mining, trading and extractive companies through various platforms. These include ICMM and the Voluntary Principles on Security and Human Rights. These initiatives provide an opportunity to learn from best practice and to find industry-wide solutions to common challenges. At an operational level, we often work with other multinational and domestic mining companies through nationally run chambers of commerce to deliver an industry-consistent voice during engagement on industry topics.

Key topics discussed in 2021:

- Role of business in responding to Covid-19
- Human rights
- Tailings storage facilities
- Social incidents
- Public health
- Operational and environmental management
- Closure of sites
- Socio-economic development projects
- Transparency in payments to governments
- Security and its engagement with civil society
- Compliance with laws and regulations

Key topics discussed in 2021:

- Impact of Covid-19 on business performance
- Financial and operational performance
- Climate change
- Compliance with laws and regulations
- Presence in developing countries
- Tailings storage management
- Transparent payments to government
- Human rights
- Industrial relations

Key topics discussed in 2021:

- Addressing Covid-19 through the supply chain
- Responsible sourcing and supply
- Transparency in the supply chain
- Procurement spend
- Human rights
- Compliance with laws and regulations
- Product carbon footprint

Key topics discussed in 2021:

- Sector response to Covid-19
- Occupational health and safety
- Public health
- Climate change
- Tailings storage management
- Transparency in payments to government
- Land management and nature, site closure and water
- Security and engagement with civil society

Stakeholder engagement
continued

Participation in external initiatives

We participate in a wide range of external initiatives, including global, national, and regional organisations, such as the Extractive Industry Transparency Initiative (EITI), ICMM, and Voluntary Principles on Security and Human Rights. Our participation supports our commitment to ongoing improvement in our approach and performance. Our activities in these organisations vary, ranging from reporting our progress to taking a role in driving strategic change. Some external organisations assess and publicly report on our performance. We are also members of various industry- and commodity-specific organisations that encourage the extractive sector to adopt and implement a consistent approach.

Key topics discussed in 2021:

- Sector response to Covid-19
- Transparency in payments to government
- Product life cycles
- Climate change
- Impact of emerging regulation and policy development

About this report

Further information about our general approach and position on various sustainability issues is available at glencore.com/sustainability

This Sustainability Report has been prepared in accordance with the Global Reporting Initiative (GRI) Sustainability Reporting Standards, core option, including the metals and mining sector supplement. Our ESG Data Book and GRI Index 2021 is available as Appendix One. It is as produced as a fuller standalone Excel document, available at glencore.com/publications, provide further details.

Deloitte LLP has independently assured selected sustainability key performance indicators (KPIs) as well as this Report's GRI compliance (see the Assurance statement in the Additional information section).

This Sustainability Report should be read alongside the Basis of Reporting, which defines the KPIs and can be found on glencore.com/publications.

Glencore is a signatory to the principles of the United Nations Global Compact (UNGC) and this Report serves as our advanced level UNGC Communication on Progress, outlining our support for its broader development objectives and our work on implementing the principles. It also fulfils our reporting requirements as members of the International Council on Mining & Metals (ICMM).

Boundaries and scope

This Sustainability Report includes information and data from our industrial and marketing activities where we have operational control, i.e. where Glencore directly or indirectly controls and directs the day-to-day management and operation of the entity engaging in such activity, whether by contract or otherwise. Where we have operational control, we report our data on a 100% basis, irrespective of the actual equity stake.

Interests held in joint ventures where we do not have operational control are excluded from our KPIs. Further excluded are investment and holding companies.

With the exception of any environmental spills were they to occur, we exclude environmental data from our warehouses, silos, ports and other small non-producing industrial sites, as their contribution to these indicators is so small as to be immaterial.

Our corporate and marketing offices do not report on environmental, health and safety data, given the immateriality of their contribution to the relevant KPIs.

Industrial care and maintenance assets with suspended operations report on a limited indicator set, reflecting their reduced activities and workforce.

This Sustainability Report contains data for the full year 2021. Acquisitions are only included if they were integrated before 1 July 2021. Data from divestments is included until the month before disposal.

We base workforce numbers on their end of year status, making them the exception to this rule. As a result, this Sustainability Report does not include workforce data from assets that were disposed of in 2021.

Data and information

Glencore's internal reporting systems capture and retain the data in this Sustainability Report. The metrics in this Sustainability Report reflect those used in the commodity markets and sectors in which we operate and are primarily based on GRI indicators, including indicators from the GRI metals and mining sector supplement.

Our greenhouse gas emissions have been calculated using Global Warming Potentials from the Intergovernmental Panel on Climate Change's Fifth Assessment Report.

In some instances, we have restated figures from previous years to reflect improvements in our data collection, analysis and validation systems. In case of material restatements, we provide explanations regarding the revised data in the ESG Data Book (Appendix One). All sustainability figures stated in this Sustainability Report represent the latest available data, unless referenced otherwise in the text. Some of the totals shown may reflect the rounding up or down of subtotals.

Glencore seeks to report on every incident in the period when it occurs. Occasionally, our incident reporting may take place later, due to an improved understanding of the incident or revisions to its classification. Where this results in a restatement of previously reported data, we will publicly disclose the restatement and its rationale.

Deloitte LLP has not undertaken additional work to review accuracy and completeness for restated data for previous reporting years and has not provided assurance for restated data.

We may change our approach to how we report our data in future Sustainability Reports without prior announcement; we may also change the reporting of specific data and its interpretation.

Material topics

Material topics

Our reporting on our sustainability performance and progress focuses on the topics we identify as material to Glencore's performance and progress, and to our future prospects.

We undertake materiality assessments to establish these focus areas. Their findings guide our health, safety, environment and community and human rights (HSEC&HR) strategic review and our reporting disclosures.

Our materiality assessments consider topics at global and local levels, as well as information relating to our business and the wider natural resources sector, regulatory requirements, and the topics raised during engagement activities with local communities, investors, the media, governments and non-governmental organisations.

At each of its meetings, the Board HSEC Committee receives an update on our progress on the management of the identified material topics.

Our material topics for 2021 were:

Catastrophic hazard management
Catastrophic events in the natural resource sector can have disastrous impacts on workers, communities, the environment, and corporate reputation, as well as a substantial financial cost. We are actively identifying, monitoring and mitigating the catastrophic hazards within our business.

Health and safety
We prioritise the safety and health of our employees and contractors and recognise that the success of our business is dependent on a safe and healthy workforce; this is our top priority. We take a preventative approach towards health and safety to establish a proactive safety culture.

Climate change
As one of the world's largest diversified resource companies, we have a role to play in enabling the transition to a low-carbon economy. We seek to lower the carbon footprint of our own operations, and to support national programmes to achieve the goals of the Paris Agreement.

Water
Water is an essential resource for many of our industrial activities. Some of our assets are located in areas with high and extremely high water baseline stress and share access to water with other local water users. Our assets undertake detailed assessments of their local environmental conditions during the operational changes in their life cycle, to develop water management strategies that maximise the efficient and sustainable use of this important natural resource.

Land stewardship
Our assets around the world have direct and indirect impacts on the land. From project design to operational closure, we focus on reducing our physical footprint on the land, identifying, managing and addressing our potential impacts by applying the principles of the mitigation hierarchy (avoid, minimise, restore/mitigate and offset). We look for ways to improve our land stewardship, reduce our impact on landscapes and enable sustainable land use following the closure of our operations.

Human rights
We recognise we have the potential to impact human rights directly through our operations, and indirectly through our relationships with joint ventures, contractors and suppliers. We are committed to respecting human rights and actively support our workforce, business partners and suppliers to understand and meet this commitment.

Responsible citizenship
Mining activities can make a significant contribution to the national, regional and local economies in which they operate, through employment, tax and royalty payments, local procurement and social development. Our aim is to minimise adverse impacts from our activities and to build partnerships to support sustainable development and growth.

Responsible sourcing and supply
We seek to incorporate social, ethical and environmental considerations in our relationships with suppliers and customers. In particular, we are committed to understanding and addressing the risk of human rights violations in our supply chains.

Our people
Attracting and retaining entrepreneurial, focused and dedicated people is fundamental to our future success. We thrive by having a workforce from different backgrounds, cultures and beliefs. This diversity brings the new ideas, innovation and different ways of working that are a core part of who we are at Glencore.

Material topics

Catastrophic hazard management

Catastrophic events in the natural resource sector can have disastrous impacts on workers, communities, the environment, and corporate reputation, as well as a substantial financial cost. By recognising and mitigating the risk of a disastrous event, we can better protect our people, communities and the environment.

SDGs

Major or catastrophic incidents

0 →

2020: 0

2021 highlights

- Progressed engineering work on tailings storage facilities identified as having potential stability issues during extreme seismic events.
- Implemented additional satellite monitoring services across our industrial assets.
- Developed and rolled out Tailings Academy modules for Responsible Tailings Facility Engineers.
- Group-wide roll out of the Road Transportation Safety Protocol.

Further information

Additional data is available in our ESG Data Book and GRI Index 2021 (Appendix One), and our extended Excel ESG Data Book, available here.

Selected sustainability KPIs are subject to external assurance which should be read alongside the Basis of Reporting document, available on glencore.com. The assurance statement can be found on page 133.

Read more
Further information on our management of catastrophic hazards is available here

Catastrophic hazard management continued

Our ambition

We are committed to eliminating catastrophic incidents at our assets and aim to become a leader in the prevention of HSEC incidents through a proactive risk-based approach.

Our approach

Recognising the exceptional nature of catastrophic incidents, our approach is to prevent them through catastrophic management plans and critical controls management, supported by rigorous monitoring and reporting.

We have specific standards for tailings storage facilities, aviation, and road transportation safety. In addition, a suite of hazard protocols set out the requirements for the prevention of catastrophic incidents at our industrial assets, by providing the minimum requirements to manage hazards.

We require all our commodity departments to maintain a register of the catastrophic hazards and to conduct regular verification of the implementation of critical controls, which the corporate HSEC&HR team review through quarterly reporting. Our commodity departments implement assurance programmes, which usually take place on a three-year cycle and include first, second and third-party assessments.

Our commodity departments monitor through to closure the outstanding actions relating to controlling catastrophic hazards identified by the HSEC audit team during audits. The HSEC audit team also return to industrial sites approximately 12 to 18 months later to verify that the industrial site has substantively addressed the finding and closed the identified corrective actions.

Our Board HSEC Committee reviews the status and results of these reports.

Our approach supports consistency across the business for the identification and management of catastrophic hazards, according to international leading practice and the International Council on Mining & Metals' (ICMM) guidance.

2021 performance

We describe catastrophic events as those that have the potential to have severe consequences that could cause multiple loss of life, significant social and/or community impacts, unconfined and widespread environmental damages, or major reputational and/or financial damage for Glencore.

In 2021, we achieved our strategic priority of zero major or catastrophic environmental incidents (see 'incident classification' in the glossary for classification details).

Despite travel restrictions due to Covid-19, we continued to progress the work programmes for our tailings storage facilities (TSFs) identified as having potential stability issues during extreme seismic events.

During 2021, we largely completed the construction of the new Narrows Dam at the Strathcona/Onaping TSF. Buttressing work continued at Kazzinc's Zyranovsky TSF in Altay, Kazakhstan with 4.5 million tonnes of buttress material already placed. Following Covid-19 related delays to industrial site investigations required to support the final design for Kazzinc's Chashinsky TSF, we plan to commence buttress construction work during 2022.

2021 activities

TSF governance

During 2021, we developed and rolled out our Tailings Management Policy, Standard and Framework. Our Framework sets out our approach to managing our TSFs and forms the basis of a tailings management system that aligns with the Global Industry Standard for Tailings Management (GISTM) requirements. Our Framework includes an Independent Review Board, led by an external consultancy, which supports our HSEC audit programme. The Independent Review Board will report to Glencore's Board and Accountable Executives annually.

We reviewed and updated our Tailings Management Standard to align with the requirements of the GISTM. The purpose of the Tailings Management Standard is to identify, understand and minimise or eliminate potential health, safety, environmental, social and business risks (including social licence to operate) associated with TSFs used to store a combination of mineral residues, water treatment sludge, sediment control and water.

The Standard requires our industrial assets to undertake an analysis of climate and meteorological data, and to capture uncertainties due to climate change. The standard also applies to water storage dams.

We also progressed our reporting and auditing platforms to support implementation and conformance to the requirements of the GISTM. In line with GISTM's timeline, our TSFs with 'Extreme' or 'Very high' potential consequences will conform to its requirements by 5 August 2023.

Our other TSFs not in a state of safe closure will meet the Standard by 5 August 2025.

Following the divestment of our Mopani, Ernest Henry and Sinchi Wayra industrial assets, we now have 107 TSFs (2020: 122), which include four at independently managed joint ventures, within the scope of the GISTM disclosure requirements.

Satellite monitoring

In 2020, we entered into a global agreement to extend satellite monitoring to over half of our facilities, prioritising on the basis of their potential consequence classification.

Satellite monitoring measures our TSFs' surface movements every 11 days, currently the maximum available frequency for this type of data collection. While the focus of the satellite-monitoring programme is our TSFs, during the year, some of our industrial assets use the data to supplement other terrestrial monitoring techniques for their operational activities, such as open pits, waste piles and areas prone to subsidence.

We use the results from our satellite monitoring in our stakeholder engagement activities to demonstrate the ongoing safe performance of our TSFs.

Tailings Manager Academy

In 2020, recognising that there are limited courses externally available for engineers to enhance their knowledge on TSFs, we launched our online Tailings Manager Academy (TMA). External subject matter experts in geotechnical, hydrogeology, environmental, and emergency response planning support the development of the TMA.

Catastrophic hazard management continued

The training builds on our employees' existing knowledge and skills and increases their capacity for decision-making on the design, construction, operation, monitoring and maintenance of TSFs.

During the year, we completed the development and roll-out of all 12 modules for Responsible Tailings Facility Engineers. This included the development of content of modules on stakeholder engagement.

In 2022, we will roll out two additional TMA courses that target Accountable Executives, managers, and leaders, as well as Tailings Dam Operators and Technicians.

Oxygen-related risks

We use oxygen in our industrial assets. Its misuse can lead to explosions and fires. In addition, there are other risks relating to oxygen handling and low/high oxygen atmospheres.

Our oxygen safety programme describes the hazards associated with oxygen-enriched atmospheres and liquid oxygen spills and sets out minimum requirements to manage them.

Our Oxygen Management Academy (OM Academy) builds awareness for our workers on the fundamental principles and practices relating to the use and production of oxygen.

The OM Academy courses are for employees at industrial sites that produce and use oxygen. This includes oxygen plants and the use of oxygen in pressure leaching, smelters and roasters. These are the areas where we see accidents taking place across the industry, due to the complex metallurgical environment.

The OM Academy has two levels: Level 1, designed for supervisors and operators who conduct day-to-day operational activities at our facilities, and Level 2, targeting managers and engineers who manage the risks of oxygen systems. Level 2 was launched in 2021 and by the end of the year around 240 people had completed the course. Level 1 modules went live in December 2021.

The learning modules are available in English, Spanish, Russian and French and accessed online, enabling each participant to work through the programme at their own pace. It reflects e-learning best practices, integrating proven instructional design and adult learning principles, with a multimedia approach. On completion, each employee is required to take a final exam to confirm their understanding of the content.

Road transportation safety

In 2019, we issued our Road Transportation Safety Protocol, which applies control measures to our 'outside the fence' activities. We developed this protocol in response to incidents in recent years involving our vehicles and those of our transport providers, contractors, and other mining companies.

The protocol's purpose is to eliminate or minimise the potential for fatalities, injuries or environmental or reputational damages arising from the busing of people and the transportation of goods or materials to, from or for, or on behalf of, Glencore on public or other offsite roads. It includes vehicles:

- carrying more than five passengers (considered busing)
- transporting hazardous substances or dangerous goods
- exceeding 4.5 tonnes gross load or
- owned or contracted by the industrial asset.

During 2020-21, our commodity departments rolled out the protocol to their industrial assets and put in place processes to monitor its implementation. In late 2021, our internal audit team started to conduct a road transportation safety audit to measure progress on our industrial sites' implementation of the protocol and identify good practices to share Group-wide. This will continue during 2022.

During the year, we had four high potential risk incidents relating to road transportation (2020: one such incident reported). This year-on-year increase is due to a clearer definition for this performance indicator, which resulted in improved reporting.

Catastrophic hazard auditing

Our HSEC audit programme primarily focuses on assessing our management of catastrophic hazards across our business. Our Group HSEC audit function is separate from our other business functions and delivers auditing of our catastrophic hazard management on an arms-length basis. It includes internal and independent subject matter experts that follow up and verify findings.

The HSEC audit team's programme evaluates the effectiveness of our sustainability risk identification, assessment and management, as well as our dissemination of information on risks, controls and best practice across the Group. Every three years an independent third-party reviews the programme.

During 2021, our corporate HSEC audit function completed over 100 catastrophic hazard audits. These included audits for tailing storage facilities, open pit and waste

Performance in brief | **Material topics** | Additional Information

Catastrophic hazard
management | Health and safety | Climate change | Water | Land stewardship | Human rights | Responsible citizenship | Responsible sourcing and supply | Our people

Catastrophic hazard management continued

dump slope stability, metallurgical plants and concentrators and various disciplines involved in underground mining.

In addition to our Group HSEC audit focus on catastrophic hazards, our Internal Audit function, which reports directly to Glencore's Board, undertook independent and objective assurance on the effectiveness of sustainability-related risk assessments, responses, and controls established by our management team.

Sustainability-related topics made up half of the Internal Audit's audits performed in 2021. The areas covered were:

- emissions reporting
- Covid-19 preventative measures
- closure planning
- ammonium nitrate storage and handling
- management follow up on sustainability findings and observations
- adherence to Voluntary Principles on Security and Human Rights
- road transportation safety

Supporting good practice industry-wide

During the year, Glencore participated in the advisory group for the Investor Mining & Tailings Safety Initiative (the Initiative). As part of our participation, we gave a presentation to the Initiative where we discussed our approach, commitment to implementing and conforming to the GISTM and overview of our updated disclosure. The Initiative appreciated our presentation, particularly for its overview of the physical demonstration of our commitments through the ongoing or completed engineering works on our TSFs.

We have indicated our willingness to participate in the Initiative's technical advisory group and its expert group to develop a 24/7 hub for monitoring TSFs. The technical advisory group will work with interested

stakeholders to guide a second request for disclosure following on from the investors' disclosure request in 2019. This new disclosure will go on the Initiatives' Global Tailings Portal.

The Initiative has launched a working group to look at supporting future tailings disclosure requirements and we are participating in this group. The group includes regulators, community and industry representatives, and investors. It is developing an additional set of disclosure questions, which the Initiative's global tailings portal will manage and store. It is unclear how the additional disclosure questions will align with GISTM's required disclosures.

In 2021, through our participation in ICMM's Tailings Management working group, we supported the finalisation of its Good Practice Guide to Tailings Management and conformance protocols. We have expressed our concern that the lack of transparent engagement by the proposed independent certifying institute is a risk for companies uptaking the conformance protocols. We will continue to encourage the ICMM to be more proactive with their engagement with the independent certifying body.

Next steps

- Complete our internal audit of the implementation of the Road Transportation Safety Protocol.
- Meet the GISTM disclosure requirements.
- Continued assurance of catastrophic hazards.

Case study

Addressing an identified risk

In Sudbury, Canada, our Strathcona nickel mill undertook an independent review of its Onaping Area Tailings and Wastewater treatment facility. The review identified a potential flooding risk downstream of the facility.

Along with expert consultants, the team at Strathcona applied leading dam design criteria to develop a solution to address the identified flooding risk. In 2021, a new 'Narrows Dam' was constructed, and the

associated water flow control and treatment equipment will be completed in 2022.

Construction of the dam included a workforce of local contractors and took 65,225 man hours to complete. It is 8 metres high, 140 metres in length, 20 metres wide at the crest of the dam, with a spillway that will divert extreme flood events and allow safe water release from the facility.

The dam design meets the latest Canadian Dam Association Guidelines and the construction work was completed safely, with no recordable injury, or environmental incident.

The Narrows Dam and its associated infrastructure is a long-term investment in Strathcona Mill's tailings and water treatment infrastructure and will further enhance the capability of the existing robust water treatment system. The dam has also been designed to meet the needs of the site's eventual closure.

Material topics

Health and safety

In line with our Values, our first priority in the workplace is to protect the health and wellbeing of all of our people. Our goal is continuous improvement in the prevention of occupational disease and injuries. Compliance with our Group Health and Safety Policy is non-negotiable. However, we recognise that each region, commodity, industrial asset, and workplace is unique, and our industrial assets implement our management approach to reflect local health and safety practices and systems. We tailor behavioural safety activities to be appropriate and relevant to the local context, without compromising any of the minimum performance expectations.

LTIFR
(per million hours worked)

0.83 ⬇

2020: 0.94

TRIFR
(per million hours worked)

2.4 ⬇

2020: 2.7

HPRIs

385 ⬇

2020: 399

New occupational diseases

109 ⬇

2020: 124

2021 highlights

- Relaunched and implemented a strengthened SafeWork.
- Launched updated Group Health and Safety Policy and new Health Standard, which significantly improves the articulation of our business performance expectations for health and safety.
- Strengthened our identification and prioritisation for hazardous contaminants.
- Ongoing support for response to global pandemic.

SDGs

3 GOOD HEALTH AND WELL-BEING

8 DECENT WORK AND ECONOMIC GROWTH

Further information

Additional data is available in our ESG Data Book and GRI Index 2021 (Appendix One), and our extended Excel ESG Data Book, available here.

Selected sustainability KPIs are subject to external assurance which should be read alongside the Basis of Reporting document, available on glencore.com. The assurance statement can be found on page 133.

Read more
Further information on our approach to health and safety is available here

Health and safety continued

Our ambition

To become a leader in safety and create a workplace free from fatalities and serious injuries, while protecting and improving the wellbeing of our people and communities.

Our approach

The health and safety of our people is our top priority and we believe all fatalities, serious injuries and occupational diseases are preventable. Through strong safety leadership, we can create and maintain safe workplaces for all our people.

Core to our approach is our risk management system, through which we systematically identify, assess, and manage health and safety hazards and credible risk scenarios associated with our operations. We let our people know that we expect every individual, all employees and contractors, to take responsibility for their own safety, and for the safety of their colleagues and the communities in which they work.

We promote, educate, and support our workforce in making healthy lifestyle choices and recognising the importance of good mental health. We expect everyone entering our industrial sites to be fit for work, free of fatigue and not under the influence of alcohol or drugs that may impair their ability to work safely.

The scorecard for our Chief Executive Officer's annual variable compensation includes 30% for KPIs relating to HSEC matters, of which 15% is for safety performance and 15% for progress towards our short- and medium-term absolute emission reduction targets.

All nine SafeWork elements must work together
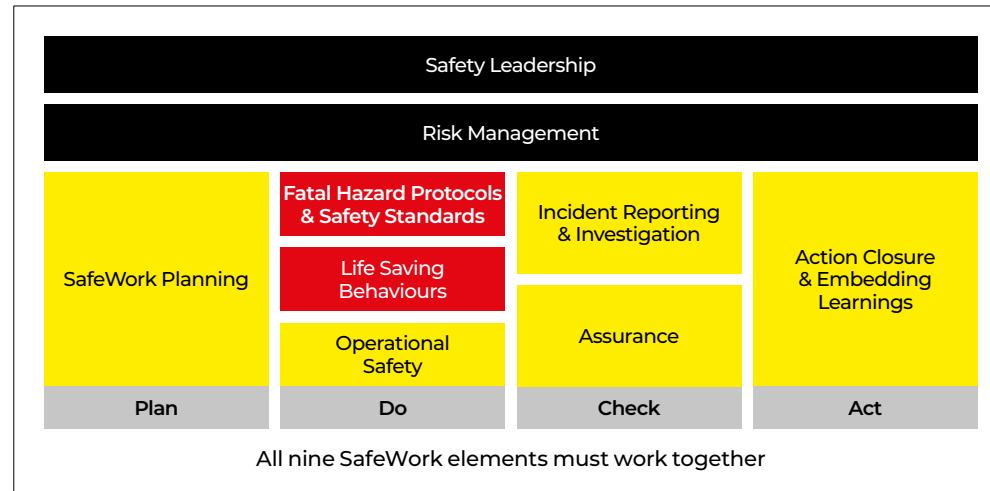
2021 performance

We are saddened to report that during 2021, four people lost their lives at our operations, compared to eight people during 2020. We believe all loss of life is unacceptable and we are determined to eliminate fatalities across our business.

During the year, both our lost time injury frequency rate[1,2] (LTIFR) and total recordable injury frequency rate[3] (TRIFR) were lower than the previous year at 0.83 (2020: 0.94) and 2.4 (2020: 2.7), respectively.

In 2021, our high potential risk incidents (HPRIs) fell to 385 (2020: 399). The reporting of HPRIs represents a supportive part of our strategy to reduce repeat incidents and fatalities and, as such, we do not target a reduction in this metric. They allow the identification of activities that need prioritising to advance further our learning and safety performance. The majority of

HPRIs related to mobile equipment and working at height, ground/strata failure and nearly 80% resulted in no injuries.

We recorded a decrease in the number of new cases of occupational disease, 109 cases (2020: 124).

During the year, our corporate-led Covid-19 Response Team continued to progress our Group response to Covid-19 in the workplace.

2021 activities
Strengthening SafeWork

We believe that all fatalities and injuries are preventable and that we all must take responsibility for maintaining a safe workplace. Any loss of life in the workplace is unacceptable and we are determined to eliminate fatalities across our business. In 2013, we developed SafeWork to achieve this goal.

SafeWork is our approach to eliminating fatalities. It establishes the expectation that everyone can identify and manage the fatal hazards in their workplace and put in place the appropriate controls.

SafeWork establishes minimum requirements and mandatory fatal hazard protocols, life-saving behaviours and safety tools. These are integrated into existing departmental and industrial asset management systems.

We believe consistent application of SafeWork through strong visible leadership will drive a culture of safe operating discipline and get our people home safely.

Since then, most of our operations have been fatality free having successfully implemented SafeWork and demonstrate strong safety performances. Despite this, our tracking of HPRIs shows that even our fatality free industrial sites need to continue to manage safety risks.

During 2019 and 2020, SafeWork reviews were conducted in our industrial assets that were underperforming. These reviews identified improvement opportunities, prompting urgent, targeted action to support the delivery of our goal of zero fatalities. In 2021, we launched a revised version of SafeWork, based on learnings from the reviews that

1 Lost time injuries (LTIs) are recorded when an employee or contractor is unable to work following an incident. We record lost days as beginning on the first rostered day that the worker is absent after the day of the injury. The day of the injury is not included. LTIs do not include restricted work injuries (RWIs) and fatalities.
2 The lost time injury frequency rate (LTIFR) is the total number of LTIs recorded per million hours worked.
3 The total recordable injury frequency rate (TRIFR) is the sum of fatalities, lost time injuries (LTIs), restricted work injuries (RWIs) and medical treatment injuries (MTIs) per million hours worked. The metric represents all injuries that require medical treatment beyond first aid.

Health and safety continued

simplifies and clarifies the key elements of SafeWork.

We continue to believe that SafeWork is the right programme if well led and fully and consistently implemented.

During 2021, we worked closely with key internal stakeholders on the refreshed SafeWork framework. We reset safety expectations at both industrial asset and commodity department levels to support a consistent implementation. The work included clarifying how we assess and verify SafeWork, establishing a leadership approach and strengthening roles and responsibilities.

All industrial assets have completed a gap analysis against the nine elements of SafeWork and have developed implementation plans to close the gaps. We are tracking implementation progress during 2022.

Strengthening our approach to occupational health

Our occupational health management strategy addresses the health risks facing our workforce, their families, and the communities inside and outside our gates.

We follow a variety of onsite programmes to manage occupational diseases and exposure to health hazards; we extend many of these health programmes to our host communities, to combat regional health problems and promote healthy lifestyles.

Our work on health is overseen by our health working group, made up of internal subject matter experts. In 2021, we launched our updated Health Standard that includes minimum mandatory requirements for the management of occupational and community health through five core pillars:

controlled work environment, fit for work, fit for life, communicable diseases, and community health. It also sets out the requirement to develop and implement programmes for mental health and wellbeing.

We also undertook work to strengthen our identification and prioritisation of hazardous contaminants, which underpin our definition of Group-wide Glencore exposure action levels (GEALs). This will continue during 2022.

Mining Technology Steering Team
Our vehicle interaction working group is continuing to support the development of technologies for mobile equipment relating to collision avoidance and fatigue monitoring at all our industrial assets.

As an enhancement on the deployment of fatigue monitoring technology, our Australian coal operations have successfully established a centralised Operator Awareness Monitoring Centre (OAMC) at our West Wallsend mine in New South Wales. The OAMC provides centralised real time monitoring and support to operators of heavy mobile equipment across our mines in New South Wales and Queensland. In a further demonstration of improving the effective use of the fatigue monitoring technology via a dedicated remote support team, the OAMC is now also providing, all the way from the Hunter Valley, real-time, fatigue-monitoring support for Koniambo, our nickel mining asset in New Caledonia.

Next steps
- Continue the implementation of the revised SafeWork.
- Industrial assets to complete gap analyses against the Health Standard, and initiate action plans to address identified gaps.
- Implement our Group-wide GEALs.

Case study

Collision Avoidance System utilising a smart lamp

Following incidents involving collisions between underground vehicles and with workers, our ferroalloys department worked with its original equipment manufacturers (OEM) to develop a people vehicle detection stop system (PVDS) to ensure vehicle operators are fully aware of workers in their immediate vicinity, while making the employee aware of the proximity of an underground vehicle.

The PVDS also facilitates the tracking of workers and vehicles in the mines.

Roy Murley, Group Engineering Manager for the mining division of our ferroalloys business in South Africa, led the work with technology suppliers and OEMs in developing an industry-leading collision avoidance system that prevents underground equipment from colliding with persons in the working environment. This sets a benchmark for the industry and will save lives.

While the PVDS stops vehicles and prevents collisions, the main purpose of the system is to change the behaviour of workers to instinctively avoid collision with vehicles.

As part of the system, the development of a smart lamp makes it possible to alert employees working underground when they are in the interaction zone of mobile equipment. Adding sensor modules to miners' lamps reduces the risk of collisions between vehicles and pedestrians.

A pedestrian tag unit is fitted onto the cap lamp cable of the miner and is powered by the lamp's battery. Its purpose is to communicate with vehicles and to record proximity events. The LEDs brightness changes and an audible alarm warns of vehicles in close proximity to the person.

Health and safety continued

Case study
Actively preventing malaria

Malaria is a life-threatening disease caused by parasites that are transmitted to people through the bites of infected female Anopheles mosquitoes. It is preventable and curable.

Our Kamoto Copper Company (KCC) and Mutanda Mining (MUMI), based in the Democratic Republic of Congo (DRC), have an established malaria control programme in the communities living near to their operational areas.

KCC and MUMI have adopted an integrated approach by implementing a malaria vector control programme that includes entomological surveillance studies, indoor residual spraying (IRS) of houses and outdoor fogging, a larval control programme and personal protection,

such as distribution of insecticide-treated nets and repellents. Mosquito nets are provided to those at risk.

In addition, both KCC and MUMI distribute educational material regarding bite prevention and personal protective measures. At their health centres, the workers have been trained in malaria case management, resulting in prompt diagnosis and effective treatment of malaria.

Since the programme was initiated in 2015, IRS has increased from around 10,000 houses to nearly 36,500 houses in 2021. There has been a rise in the population protected from around 60,000 people in 2015 to almost 225,000 people in 2021.

Through scaling-up and integrating effective, safe, and proven interventions, the impact of malaria on residents in the malaria-endemic areas can drastically be reduced. During the six years of the programme, it has helped to deliver a 95% decrease in malaria cases (from 13,878 cases in 2015 to 1,362 cases by December 2021). It has helped to reduce malaria deaths by 100%, from 1.34/10,000 population in 2015 to 0/10,000 population by the end of 2021.

Currently, the DRC government does not participate in the programme. Going forward, for the programme to be sustainable, the government needs to take the lead, with support from the companies operating in the province, whose employees already benefit from its existing activities.

Case study
Supporting the global vaccine rollout

In 2020, the world faced an unprecedented challenge from the Covid-19 pandemic. Many of our operations are in remote areas with limited public health care systems. Our teams worked closely with governments, health agencies and other key responders to identify local and regional needs.

As part of our efforts, in 2020 we established a US$25 million Glencore Community Support Fund (the Fund). The Fund was flexible and responsive to complement existing efforts by our local teams to provide the support their communities need most.

Initially, the Fund prioritised assistance to respond to the immediate impacts of the crisis. This included providing access to clean water, hygiene products and medical equipment, as well as enabling students to continue learning through the provision of free wi-fi hotspots.

During 2021, our activities focused on supporting the rollout of Covid-19 vaccines

in our operating regions. Our approach reflected local needs and often involved working with government agencies and public health services. For example:

- In Chile, vaccination programmes were held at the Lomas Bayas and Collahuasi copper operations, in collaboration with local authorities. Antamina in Peru worked with the regional government to provide logistical support for vaccination services.

- Several of our Canadian industrial assets worked in partnership with the government to open vaccination clinics to the public.

- In Europe, our Portovesme and Nordenham zinc assets' clinics distributed government-supplied vaccines to their workforces.

- Our South African operations registered their clinics as vaccination centres and our medical centre in the DRC was selected to distribute government-supplied vaccines.

- In Kazakhstan, Kazzinc arranged for 21 of its site clinics to distribute government-supplied vaccines to local communities.

- In Australia, we were part of a coordinated mining company response, Operation COVID Shield National Business Partnership, which focused on the resources sector working together and in partnership with communities and local governments.

Material topics

Climate change

The world requires a global transformation of energy, industrial and land-use systems to achieve the goals of the Paris Agreement and the United Nation's Sustainable Development Goals. We believe this transition is a key part of the global response to the increasing risks posed by climate change.

As one of the largest diversified natural resource companies in the world, we can support the delivery of these goals by producing, recycling, marketing and supplying the metals and minerals that are essential to the transition to a low-carbon economy and to meeting the needs of everyday life.

We seek to decarbonise our own operational footprint and support national programmes that strive to achieve the goals of the Paris Agreement. Our 1.5°C-aligned target of an absolute 50% reduction of total emissions by 2035 on 2019 levels, is supported by a 15% reduction of total emissions by 2026. Post-2035, our ambition is to achieve a net zero total emissions footprint by 2050.

SDGs

Scope 1 emissions
(CO_2e million tonnes)

15.0 ↑

2020: 14.8

Scope 2 location-based emissions
(CO_2 million tonnes)

10.8 ↑

2020: 9.4

Scope 3 emissions
(CO_2e million tonnes)

254 ↓

2020: 271

Total energy use
(petajoules)

178 ↓

2020: 180

2021 highlights

- Strengthened our climate governance.
- Progressed our Marginal Abatement Cost Curve.
- Signed agreements for renewable power supply.
- Strategic partnerships with Natur-AI™, Britishvolt and FREYR.
- Launch of updated Group Environment Policy and new Energy and Climate Change Standard, which significantly improves the articulation of our business performance expectations.

Further information

Additional data is available in our ESG Data Book and GRI Index 2021 (Appendix One), and our extended Excel ESG Data Book, available here.

Selected sustainability KPIs are subject to external assurance which should be read alongside the Basis of Reporting document, available on glencore.com. The assurance statement can be found on page 133.

Read more
Further information on our approach to climate change is available here

Performance in brief | **Material topics** | Additional Information

Catastrophic hazard management | Health and safety | **Climate change** | Water | Land stewardship | Human rights | Responsible citizenship | Responsible sourcing and supply | Our people

Climate change continued

Our ambition

To provide commodities that are essential to the transition to a low-carbon economy in a manner consistent with the goals of the Paris Agreement. To deliver a strong investment case to our shareholders through investing in assets that are resilient to regulatory, physical, and operational risks related to climate change. To fully integrate the management of climate change-related risks and opportunities into our business systems.

Our approach

We recognise climate change science as set out by the United Nations Intergovernmental Panel on Climate Change (IPCC). We support the global climate change goals outlined in the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement.

We believe that only through collective inclusive action can the world achieve the goals of the Paris Agreement and limit the impact of climate change.

The global response to climate change should pursue twin objectives: limiting temperatures in line with the goals of the Paris Agreement and supporting the United Nations Sustainable Development Goals, including universal access to affordable energy.

Our focus remains on our total emissions footprint, including our Scope 3 emissions, which is critical for achieving the goals of the Paris Agreement. We have linked our capital allocation strategy to the achievement of our climate targets.

Our decarbonisation pathway

| Our portfolio profile provides the flexibility to decarbonise our emissions footprint | Short term: 2026 Target of 15% reduction in total CO_2e emissions | Medium term: 2035 Target of 50% reduction in total CO_2e emissions | We have set ourselves the ambition of achieving net zero total CO_2e emissions[1] by 2050 |

1 Coordinated government policies, including incentives to drive accelerated uptake of lower carbon and decarbonisation technologies, and market based regulations governing industrial practices that drive a competitive, least cost emissions reduction approach, are critical to our ability to achieve our ambition of net zero total emissions by 2050.

We plan to deliver our ambition of net zero total emissions by 2050 through seven core pathways:

Managing our footprint

FOOTPRINT

Managing our operational footprint
Reducing our Scope 1 and 2 emissions

REDUCTION

Reducing Scope 3 emissions
Our diverse portfolio uniquely allows us to address this portion of our footprint through investing in our metals portfolio, reducing our coal production and supporting deployment of low emission technologies

CAPITAL

Allocating capital to prioritise transition metals
Investing in the metals that the world needs

Contributing to global decarbonisation

PARTNERSHIP

Collaborating with our value chains
Working in partnership with our customers and supply chain to enable greater use of low-carbon metals and support progress towards technological solutions to address climate change

ABATEMENT

Supporting uptake and integration of abatement
An essential contributor to achieving low – or net zero carbon objectives

TECHNOLOGY

Utilising technology to improve resource use efficiency
Contributing to the circular economy

TRANSPARENCY

Transparent approach
Reporting on our progress and performance

Performance in brief | **Material topics** | Additional Information

| Catastrophic hazard management | Health and safety | **Climate change** | Water | Land stewardship | Human rights | Responsible citizenship | Responsible sourcing and supply | Our people |

Climate change continued

2021 performance

During the year, we completed our work on enhancing our climate governance process. This included an updated Environmental Policy with clear commitments on energy efficiency and climate change, supported by global working groups and a new Energy & Climate Change Standard.

We launched a new Energy & Climate Change Group Standard, and updated the global Energy Data Reporting Procedure, to drive improved performance, consistency, and accuracy.

We also introduced a new short-term target and revised our medium-term emissions reduction target. We are committed to reducing our total emissions (Scope 1, 2 and 3) by 15% by 2026 and 50% by 2035, both on 2019 levels. Post-2035, our ambition is to achieve net zero total emissions by 2050, with a supportive policy environment.

Managing our operational footprint

In line with the Greenhouse Gas Protocol, we divide our operational emissions into Scope 1 and Scope 2 emissions, measuring both the direct and indirect emissions generated by the industrial activities, entities, and facilities where we have operational control.

Scope 1 (measured in CO_2e) includes emissions from our industrial sites (i.e. direct emissions), including reductants, emissions from combustion in our boilers, furnaces and vehicles/vessels and coal seam emissions.

Scope 2 location-based emissions (measured in CO_2) are the GHG emissions associated with our industrial sites' consumed indirect energy (i.e. purchased electricity, steam and heating/cooling). This approach applies grid emission factors to all purchased electricity, steam and heating, regardless of contractual purchase arrangements.

During 2021, we emitted 15.0 million tonnes CO_2e of Scope 1 (direct emissions) from our consumed fuel (2020: 14.8 million tonnes). This figure includes emissions from reductants used in our metallurgical smelters. It also includes CO_2e of methane emissions from our coal and oil operations, which is around 20% of our Scope 1 emissions.

During 2021, our total energy use of 178PJ was a decrease on the 180PJ reported in 2020, primarily due to the sale of Mopani and the relinquishment of Prodeco's mining licence. Renewable energy sources delivered 13.4% of our total energy needs (2020: 13.3%). The primary contributors are the Bukhtarma hydro power plant in Kazakhstan, which we operate, and the low-carbon, hydropower electricity suppliers to our operations in eastern Canada and the DRC.

The consumption of electricity purchased by our industrial assets, our Scope 2 emissions, is also a major action area within our decarbonisation plans. In 2021, we emitted 10.8 million tonnes CO_2 of Scope 2 location-based (indirect emissions) (2020: 9.4 million tonnes). Using the market-based approach, Scope 2 (indirect emissions) totalled 11.1 million tonnes of CO_2 (2020: 9.2 million tonnes).

The increase between 2020 and 2021 Scope 1 and 2 emissions reflects an increase in production volumes in response to the global economic recovery from the Covid-19 pandemic, notably at the grid-powered Ferroalloys smelters in South Africa, which were idled during the national lockdown in 2020. We remain confident of our progress in meeting our short-term and medium-term absolute reduction targets of reducing our total emissions (Scope 1, 2 and 3) by 15% by 2026 and 50% by 2035 on 2019 levels.

Addressing Scope 3 emissions

Our Scope 3 emissions are the indirect greenhouse gas (GHG) emissions across our value chains. They include emissions from upstream supply chains, downstream customer use of our products, third-party logistics and transportation, and emissions associated with joint ventures that we do not operate. While these emissions are the result of activities outside of our direct control, we can exert an indirect influence through taking a collaborative approach with our value chain stakeholders and by making changes to our product portfolio.

For the extractive sector, Scope 3 emissions tend to be the largest proportion of total emissions. For Glencore, these emissions represent over 90% of our total carbon footprint and including a reduction in Scope 3 emissions is essential for making a meaningful contribution to reducing global emissions.

The most significant contributor to our Scope 3 emissions is our customers' usage of the fossil fuels we produce (predominantly coal). In the Asia-Pacific region, the key destination for our Australian and South African coal production, coal is the predominant source of fuel for power generation and, we believe, will remain a vital transition fuel until such time as alternative energy infrastructure can be approved, financed, and constructed.

During 2021, we increased our engagement with our key equipment manufacturing suppliers and customers to improve our understanding of the emissions within our value chain. We are actively looking for opportunities to partner with our stakeholders to drive the uptake of carbon neutral solutions and low emission technologies, and to develop robust and consistent emission tracking and data collection throughout our value chain.

In the short term, we are actively monitoring our stakeholders' decarbonisation efforts and exploring partnership opportunities to develop and commercialise carbon-neutral goods, services, and processes. Over the medium term, we plan to systemise the integration of our climate targets into our supplier selection criteria and to develop internal systems that more accurately track value chain emissions that will feed into our annual Scope 3 inventory reporting.

Our total Scope 3 emissions in 2021 were 254 million tonnes CO_2e, compared to 271 million tonnes CO_2e in 2020. The decrease was principally due to pandemic-driven lower coal volumes.

Our customers' usage of the fossil fuels we produced totalled 237 million tonnes CO_2e (2020: 253 million tonnes CO_2e), being around 93% of our total Scope 3 emissions.

Our ESG Data Book (Appendix One) provides full disclosure on the Scope 3 categories that are relevant and material to our activities.

Performance in brief | **Material topics** | Additional Information

| Catastrophic hazard management | Health and safety | **Climate change** | Water | Land stewardship | Human rights | Responsible citizenship | Responsible sourcing and supply | Our people |

Climate change continued

2021 activities

During the year, we continued to evolve our Group-wide Marginal Abatement Cost Curve (MACC), which identifies GHG reduction opportunities across our portfolio.

We continued to collect asset-level data to improve our understanding of our abatement opportunities. We incorporated this work into our annual planning cycles, supporting our assessment of the carbon price scenarios required to trigger the investment in various MACC opportunities.

As a result of further work done on understanding our emissions profile and the opportunities to deliver reductions, we revised our medium-term emissions reduction target and introduced a new short-term target. We are committed to reducing our total emissions (Scope 1, 2 and 3) by 15% by 2026 and 50% by 2035, both on 2019 levels. Post 2035, our ambition is to achieve net zero total emissions by 2050, with a supportive policy environment.

Executive oversight and Board involvement

During 2021, we revised our internal climate change governance framework to drive implementation of the climate strategy and the supporting work programmes.

Our new Climate Change Taskforce (CCT) is accountable to our Board of Directors, to whom it provides regular progress and status updates. Its members include our Chief Executive Officer, Chief Financial Officer, Head of Industrial Assets and General Counsel, and also representatives from key corporate functions including investor relations, finance, and sustainable development. Commodity departments, including heads of the departments and nominated representatives,

participate in the working groups that support the CCT.

The CCT is responsible for overseeing our climate strategy and progress against our climate commitments. In 2021, the CCT met on four occasions and established four working groups to drive the delivery of our targets and net zero ambition.

The working groups focus on areas specific to our industrial activities, marketing activities, climate-related data and its disclosure and external stakeholder engagement and advocacy activities. It is through these working groups that we assess initiatives to reduce our carbon footprint, identify and leverage carbon marketing opportunities, design and implement systems to support complete, accurate and attestable reporting and monitor external trends, while coordinating and overseeing advocacy and communication efforts.

Strategic decisions, including those on capital allocation and portfolio management, are decided on by Group management and the Board.

Our Chief Executive Officer is the named executive for driving the climate strategy within our Board. This is reflected in his remuneration package. Of the scorecard for his annual variable compensation, 30% is for KPIs relating to HSEC matters: 15% for safety performance and 15% for progress towards our short- and medium-term absolute emission reduction targets.

Securing a renewable energy supply

During 2021, our Asturiana de Zinc and EDP signed agreements for the sale of electricity from EDP Renewables' wind farms for the next 19 years, to 2040. This is the longest-term

contract of its kind signed by EDP Spain. The energy company will supply the plant with 237 GWh per year during the 19 years, the equivalent to the average annual electricity consumption of around 65,000 homes. The consumption of this renewable energy will avoid the emission of approximately 63,000 tonnes of CO_2 each year, an impact on air quality similar to around 4.5 million new trees. The new electricity supply agreement with EDP will also help to work towards meeting our customers' requirements for low-carbon metals.

In Australia, Mount Isa Mines (MIM) reached a 15-year agreement with the APA Group to supply MIM's copper-lead-zinc-silver operations with renewable electricity. The agreement supports the expansion of the Mica Creek Solar Farm by an additional 44MW of solar power generation.

Our South African ferroalloys business has signed an energy conversion service agreement with Swedish Stirling AB for the installation of 25 PWR BLOK 400-Fs (10MW) at our Merafe Lion ferrochrome smelter. The PWR BLOK 400-F is a product developed by Swedish Stirling which enables the conversion of industrial residual and flare gases into electricity. The first PWR BLOK is expected to be delivered to Lion in 2022.

Identifying and reducing our Scope 3 emissions

The GHG Protocol informs our approach to Scope 3 emissions reporting. In 2021, we initiated a review of our boundary assessment of the Protocol's 15 categories and the methodology applied to calculate emissions within each. This work is ongoing and supported by continued engagement on climate with our value chain partners.
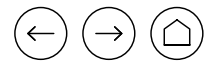
Climate change continued

As the reporting boundaries and methodology of our Scope 3 emissions accounting evolves, we will restate the emissions baseline for our total emissions targets as needed.

In addition to lowering our own value chain emissions, we are seeking to contribute to the decarbonisation of global value chains through offering low-carbon products to our customers. As a vertically integrated extractive and marketing business, we can leverage our carbon reduction efforts as well as market expertise to meet the increasing needs for attestable low-carbon products.

An accurate assessment of our products' environmental footprint requires a methodology with clear rules on emission attribution. It needs to be able to trace emissions through complex production processes and account for various product and service inputs and outputs throughout the product's value chain and life cycle. Life Cycle Assessment (LCA) and Product Carbon Footprint studies facilitate this level of analysis by tracking and assessing a product's environmental impacts that arise from mining, processing, use, maintenance and disposal or recycling.

Alongside our continued participation in LCA studies conducted by commodity- and product-specific industry organisations, during 2022, we are assessing options to develop modelling tools that support an accurate assessment of GHG emission footprints specific to our products, production processes and value chains.

Strategic partnerships
During 2021, recognising the need for strategic partnerships between raw material and battery producers to support the delivery of our net zero ambition, we signed long-term supply agreements for green aluminium and cobalt.

In February, Glencore and Century Aluminium Company, in which we have a minority interest, agreed to supply Natur-Al™ aluminium for five years to Austrian firm Hammerer Aluminium Industries.

Natur-Al™ aluminium has direct CO_2 levels below two tonnes of CO_2 per tonne of aluminium – one of the lowest CO_2 footprints in the world for the metal. The total CO_2 footprint is four tonnes of CO_2 per tonne of aluminium, less than one quarter of the industry average.

In August 2021, we announced our investment in Britishvolt, the UK's foremost investor in lithium-ion battery cell technologies and associated research and development. Britishvolt aims to produce responsibly manufactured battery cells, primarily to power electric vehicles. We also entered a long-term strategic partnership with Britishvolt for the supply of responsibly sourced cobalt.

In November 2021, we signed an agreement with FREYR to supply 1,500 tonnes in the form of cobalt cut cathodes made from partially recycled cobalt from Nikkelverk, our Norwegian refinery. This ethically sourced cobalt will be a core component in FREYR's lithium-ion battery (LIB) cells, which are used for stationary energy storage, electric mobility, and marine applications.

Supporting a just transition
We recognise that the transition to a low-carbon economy will affect mining regions in different ways. For some operational jurisdictions, there may be a move towards automated equipment and for others the closure of uneconomical assets. We are conscious of the potential negative socio-economic impacts on the communities living around our operations from the global transition.

We are supportive of the concept of a 'just transition', which seeks to ensure the benefits of the low-carbon transition are shared widely and fairly and support those who lose economically.

Mining operations have a 'life of mine' and over the years, we have closed industrial assets. In the period to 2026, some industrial assets in our Australian and South African businesses will reach the end of their economic lives.

In South Africa, the National Business Institute (NBI), in partnership with Business Unity South Africa and the Boston Consulting Group, launched the Climate Pathways project for a Just Transition in South Africa. The project brings together the private sector, government, labour organisations, and civil society to work collectively on developing a view of the decarbonisation pathways for the South African economy. We participated in NBI's just transition working group, and also in one of NBI's advisory groups that supported this project.

Engaging with our stakeholders on climate change
During the year, we continued our ongoing engagement with a range of stakeholders on our approach to climate change. These included Climate Action 100+ and the Transition Pathway Initiative. We formulated our climate change strategy in partnership with key stakeholders.

We work with respected corporates, our suppliers and customers, policy bodies and standards-setting organisations to identify opportunities to both promote and supply greater use of low-carbon metals and renewable fuels that enable critical transitions in transportation, infrastructure, and energy systems.

Our ongoing engagement activities are core to our commitment to inform stakeholders on our progress towards meeting our 2035 emissions reduction target and our ambition to achieve net zero total emissions by 2050, and demonstrating our portfolio resilience under a range of scenarios.

Next steps
- Progress our seven core pathways to deliver our ambition of net zero total emissions by 2050.
- Continue to identify strategic partnerships.
- In 2022, industrial assets to complete comprehensive gap analyses against the Energy and Climate Change Standard, and initiate action plans to address any identified gaps.

Performance in brief | **Material topics** | Additional Information

Catastrophic hazard management | Health and safety | **Climate change** | Water | Land stewardship | Human rights | Responsible citizenship | Responsible sourcing and supply | Our people

Climate change continued

Additional information

We publish additional information on our progress in climate change matters in our Annual Report (a standalone, climate change chapter, as well as content integrated into the business strategy). Our 2021 Climate Report: Pathway to Net Zero provides an update on our progress against meeting our short- and medium-term targets and 2050 ambition. It also includes our annual Review of our Industry Organisations' Positions on Climate Change.

These publications are available on our website.

We support the Task Force on Climate-related Financial Disclosures' (TCFD) voluntary framework for the reporting of climate-related financial risk disclosures for use by lenders, insurers, investors, and other stakeholders. We believe our 2021 Climate Report to be compliant with the expectations embedded in the TCFD framework.

Case study

Carbon capture and storage (CCS)

CCS is an integrated suite of technologies that can prevent large quantities of CO_2 from being released into the atmosphere. CO_2 is captured prior to emission and then injected deep into a rock formation for permanent storage.

According to the IPCC, all pathways that limit global warming to 1.5 degrees require both technology and nature-based CO_2 removal. CCS provides a technology-based solution.

CCS enables the removal of CO_2 emissions at their source and is the main technology available today that can decarbonise hard-to-abate sectors such as cement and steel.

CCS is a proven technology. Currently there are 27 large-scale CCS facilities in commercial operation, four in construction and 58 in advanced development stage. These facilities are already capturing nearly 40 million tonnes of CO_2 per annum and more than 260 million tonnes of CO_2 have been safely injected underground.

Our wholly owned Carbon Transport and Storage Company (CTSCo) Project aims to demonstrate carbon capture and storage technology, which would enable our customers and other users to improve the management and reduction of their emissions. It is focused on:

- capturing CO_2 from a coal-fired power station in Queensland; and
- permanently storing the CO_2 deep underground.

The CTSCo Project has the potential to store significant volumes of CO_2 to reduce existing and future sources of industrial emissions. This could improve energy security for the national electricity market and maintain and grow jobs in regional Queensland, and enable future industries including, hydrogen production, while also contributing to Australian and Queensland Government climate and emission reduction goals.

Key funding and project participants include Glencore, Low Emission Technology Australia, Australian National Low Emissions Coal Research and Development and the Australian Government. A final investment decision on the CTSCo Project is expected in 2022.

Performance in brief | **Material topics** | Additional Information

Catastrophic hazard management | Health and safety | **Climate change** | Water | Land stewardship | Human rights | Responsible citizenship | Responsible sourcing and supply | Our people

Climate change continued

Case study

Managing methane

Most coal seams contain some level of methane gas, which contributes to carbon emissions. The methane gas is released in both opencut and underground operations. The amount of gas or methane is dependent on a number of factors, including the coal seam's depth and the amount of carbon within the mined coal. In general, because the gas content of deeper lying coal seams is higher, underground mining releases more methane than opencut mining.

Management of gas and methane is a major safety requirement for underground coal mining. Current best gas management practice involves draining the gas from the coal seam before underground mining occurs. This approach assists in reducing a mine's greenhouse gas emissions through allowing the capture and destruction of methane.

There can be two phases of gas drainage in underground longwall mining operations:

- gas is extracted from the coal seam before mining begins in each longwall panel. This is known as pre-drainage; and
- vertical and/or horizontal boreholes are drilled into the longwall workings before mining, so that drainage can take place after the coal has been mined.

Over the last 10 years, our Australian coal business has reduced greenhouse gas emissions by over 28 million tonnes of CO_2e through flaring or generating electricity from the methane gas captured from underground operations . This is equivalent to greenhouse gas emissions avoided by nearly 7,000 wind turbines running for a year, according to the US's Environmental Protection Agency CO_2 calculator.

Our coal operations continue to look at ways to reduce their emissions. Our Oaky Creek coking coal complex in central Queensland has an extensive gas management network in place. Last year Oaky Creek spent AUD50 million on activities and works to transport methane gas to an externally-owned and operated power generator.

At Bulga Underground, which is no longer in operation, more than AUD31 million has been spent on infrastructure and active gas management since mining ended. The site's gas drainage system remains in place and the extracted methane powers a 9MW generator owned and operated by the site.

Material topics

Water

Water is an essential resource for many of our industrial activities. Some of our industrial assets are in areas with high to extremely high water-baseline stress and share access to water with other local water users. Other industrial assets manage surplus water that may involve dewatering activities and flood protection measures. Regardless of their location, our assets undertake detailed assessments of their local environmental conditions during the operational changes in their life cycle, to develop water management strategies that maximise the efficient and sustainable use of this important natural resource.

Water withdrawn
(million m³)

999 ⊘

2020: 1,033

2021 highlights
- Launched updated Group Environment Policy and new Environment Standard, which significantly improves the articulation of our business performance expectations for water management.
- Development of internal water targets.

SDGs

Further information

Additional data is available in our ESG Data Book and GRI Index 2021 (Appendix One), and our extended Excel ESG Data Book, available here.

Selected sustainability KPIs are subject to external assurance which should be read alongside the Basis of Reporting document, available on glencore.com. The assurance statement can be found on page 133.

Read more
Further information on our approach to water is available on our water microsite and here

Water continued

Our ambition

To minimise our operational water footprint and encourage fair and equitable access for all water users.

Our approach

We are committed to the principles of water stewardship across our global operations, through the application of strong and transparent water governance, effective management of water, and collaboration with stakeholders to achieve responsible and sustainable water use.

We recognise access to safe and clean water and sanitation as a salient human right. We seek to fully understand and minimise our operational water footprint and manage our activities in a way that protects our shared water resources. We are committed to ensuring good water management is in place at our assets and undertake detailed assessments, target setting, monitoring and implementation of corrective actions. Our industrial assets consult their host communities and other relevant local water users to understand local priorities and to collaborate on sustainable solutions.

2021 performance

In 2021, we withdrew 999 million m³ (2020: 1,033 million m³). The decrease in withdrawn water is primarily related to the sale of Mopani, maintenance activities at some sites, implementation of enhanced water-related requirements in our Environmental Policy and Environment Standard, as well as Covid-related impacts.

Glencore's overall water balance 2021 (GL)[1]

Water input (by source)	1,014
Surface water – withdrawn	182
Sea water – withdrawn	177
Groundwater – withdrawn	320
Rainwater – withdrawn	199
Potable (drinking) water imported or withdrawn	15
Other (non potable) water imported from a third party	69
Water imported from internal water sharing network	37
Total water withdrawn	**999**
Water entrained in ore that is processed	15

Water used, reused/recycled on-site	1,084
Water used in a task or process	598
Water recycled at onsite treatment facilities	150
Water reused (no treatment before reuse)	336
Recycling and reuse efficiency rate[1]	45%
Change in water in storage	18

Water output (by source)	996
Water discharged to surface water	401
Water discharged to sea water/ocean	181
Water discharged to groundwater	8
Water discharged to off-site treatment or disposal locations	11
Water exported to third parties	23
Water exported to internal water sharing network	41
Water consumption	
Water lost to evaporation and other losses	284
Water entrained in waste material and product	47

Diversions and water transferred to others	**71**
Surface water diversions	27
Aquifer interception diverted	26
Water supplied to others	18

Total water input by quality[2]	1,014
Category 1 – Water withdrawn	247
Category 2 – Water withdrawn	423
Category 3 – Water withdrawn	344

Total water output by quality[2]	996
Category 1 – Water discharged	451
Category 2 – Water discharged	410
Category 3 – Water discharged	136

1   Recycling and reuse efficiency rate = Total water recycled/reused divided by sum of Total water used in a task or process + Total water recycled/reused.
2   Water quality categories reflect the effort required to treat water to achieve drinking water quality. Category 1 is minor efforts through to Category 3 for significant efforts.

- ☐ Water input
- ☐ Water use
- ☐ Water output
- ☐ Water diversion/transferred to others

Water continued

Our total water withdrawal includes around 40 million m³ moved from one industrial site to another through dedicated sharing networks that were installed to increase our overall water efficiency.

In 2021, we recorded no 'moderate' water-related environmental incidents (2020: two moderate incidents – see 'incident classification' in the glossary for classification details). We investigate all complaints and, where appropriate, work with local authorities to address any operational impacts on water sources.

In 2021, we received 28 water-related fines totalling approximately US$4.0 million (2020: four fines received totalling US$10,000). Most of the increase relates to three events of reported exceedances of the permissible concentration of pollutants at outlets to surface water bodies by our Kazzinc industrial assets in Kazakhstan. The increase in the amount of fines paid is due to changes made to permitted discharge limits, and to changes, implemented in late 2020, in how regulators calculate the fines across the general industry in Kazakhstan. Kazzinc is currently in the process of discussing the applicability of these fines with the national regulatory authority.

We apply the World Resources Institute's Aqueduct Water Risk Atlas' baseline water stress levels and consider freshwater withdrawal quantities to identify operations with potential high water-related risks. In addition to identifying high-risk industrial sites, we also assess and monitor water-related risks through an annual internal survey of all our industrial operations. This process is designed to identify potential substantive water-related risks and impacts (e.g. physical, environmental, and social), due

to operational changes. We also establish appropriate preventive and mitigating controls for all risks, irrespective of their classification. We apply Glencore's Risk Management Framework, which contains defined thresholds to assess the combined impact of potential consequences and probability, in order to analyse and classify material business risks.

As at the end of December 2021, 33% of our industrial sites are located in areas with baseline water stress.

We identify and implement various water-sharing and saving opportunities to conserve water, reduce operational water dependency, and mitigate potential environmental and local community impacts. Our 2021 initiatives are available on our water microsite.

2021 activities

During the year, we launched our revised Environmental Policy and enhanced Group-level Environment Standard.

Our Environment Standard require all assets to develop asset-level targets for performance improvement, including for water. We developed a water management guideline to drive a consistent approach to setting, monitoring and tracking our water management performance

Our water working group, comprised of internal global subject matter experts, strengthens our approach to water management, governance requirements and development of both internal and external water targets. During the year, the working group met regularly to:

- leverage global expertise and shared learnings, and
- support progress against our Group water target, which calls for all managed operations in water-stressed regions to assess their material water-related risks, set local targets, and implement actions to reduce impacts and improve performance by the end of 2023.

Throughout 2021, the working group finalised the enhanced Group environmental governance, including updated water-related commitments in our Environmental Policy and associated requirements in the Environment Standard. Members of the working group also participated in the update of the ICMM's water reporting guidance, which was published in August 2021.

Next steps

- Industrial assets to complete comprehensive gap analyses against the Environment Standard, and initiate action plans to address any identified gaps.
- Continued alignment with ICMM's 2021 updated water reporting requirements.
- Group-level reporting on alignment with ICMM Performance Expectations, including those related to water.
- Advancing our partnership with Proteus and continue our work with the ICMM working groups on biodiversity and nature, closure, water and climate change to identify risks and opportunities in our integrated assessment, management and protection of water resources.
- Advancing our global activities to achieve our water target.

Water continued

Additional information

Our water microsite, ESG data book (Appendix One) and extended ESG data Excel document (which aligns to both ICMM Water Reporting Guidance and GRI water disclosure requirements), provide additional details on our global water-related performance and initiatives

Our water microsite is available at: https://www.glencore.com/ sustainability/esg-a-z/water-management.

Case study

Strengthening public water infrastructure

In South Africa, changing weather patterns are significantly affecting the supply of water to many communities. This is further exacerbated by insufficient distribution infrastructure.

Our ferroalloys business is undertaking a ZAR20 million project to strengthen water infrastructure and its availability at four villages close to its Rhovan vanadium mine in the Brits area. Over 15,000 inhabitants of these four doorstep communities, Bethanie, Modikoe, Berseba, and Makolokwe, will benefit from the bulk water supply project.

The Kortbegrip Bulk Water Supply Project will install 22.6 kilometres of supply pipeline to provide the Bethanie township with potable water from the Kortbegrip Reservoir. An additional 13 kilometre pipeline will connect the Makolokwe community.

Ahead of the project completing, Rhovan has implemented interim water supply relief measures that include the drilling of 21 boreholes for its local communities. It has also installed 20 water tanks with a volume of 10,000 litres each and pumps with solar panels to generate electricity to power the pumps. It has contracted a local supplier to supply 10,000 litres of water each day to the Makolokwe community.

The Kortbegrip Bulk Water Committee has been established and, as well as Rhovan, includes key stakeholders, such as the NW Department Cooperative Governance and Traditional Affairs, Magalies Water, Rustenburg Local Municipality, Bakwena Ba-Mogopa Tribal Council, and Kgosi Mamogale. The Committee will oversee the project.

Material topics

Land stewardship

From project design to operational closure, we focus on reducing our physical footprint on the land, identifying, managing, and addressing our potential impacts by applying the principles of the mitigation hierarchy (avoid, minimise, restore/mitigate, and offset). We seek opportunities to restore and rehabilitate areas that have ceased industrial activities and, at a minimum, comply with all applicable relevant regulations. We seek to identify opportunities to align to international best practice. We look for ways to improve our land stewardship activities to enable sustainable conditions within the ecosystems in which we work, and for the communities and species that depend on them.

SDGs

Land rehabilitated
(hectares)

1,720

2020: 3,118

Land disturbed
(hectares)

2,112

2020: 5,124

2021 highlights

- Launched updated Group Environmental Policy and new Environment Standard, which significantly improves the articulation of our business performance expectations for land stewardship.
- Established a partnership with Proteus, a pivotal global UNEP-industry initiative to protect and promote biodiversity and Nature.
- Ongoing participation in the ICMM Closure Planning and Biodiversity Working Groups, collaborating with industry peers on best practices and performance improvements.

Further information
Additional data is available in our ESG Data Book and GRI Index 2021 (Appendix One), and our extended Excel ESG Data Book, available here.

Read more
Further information on our approach to land stewardship is available here

Land stewardship continued

Our ambition

To be a leader in environmental performance, and to minimise harm to the environment, through environmental stewardship and responsible resource management across our global operations.

Our approach

We are committed to managing our land in a productive and sustainable manner ensuring proactive stewardship of our landholdings, including those that have not undergone industrial activity. We are also committed to identifying, recording, and protecting, in alignment with local regulatory requirements and best practice, cultural heritage and archaeologically sensitive locations on our landholdings. We conduct our work with respect for legally-designated areas, such as International Union for Conservation of Nature category I-IV protected areas and commit to neither mine nor explore in World Heritage Sites.

We require our industrial assets to implement robust land stewardship management systems, including progressive land rehabilitation targets tied to life of asset planning. These include standard elements such as an environmental policy, data collection and monitoring, adaptive management, and continuous improvement.

We are committed to identifying and addressing the potential impacts of our business on ecosystem services and achieving no net loss of biodiversity through the application of mitigation hierarchy. We support species' preservation and biodiversity conservation through integrated land use planning and management practices, partnerships, and research. This supports the

long-term sustainability of our business and the environment in which we operate, by seeking opportunities to reduce our operational footprint, wherever possible, and addressing biodiversity impacts. We require all industrial assets to develop risk-based biodiversity action plans and site-level biodiversity targets, to drive progress in this critical area.

2021 performance

We are a large landowner and, as at the end of December 2021, own, lease or manage around 2 million hectares. Our activities have disturbed around 6% of this land (130,000 hectares). During 2021, we disturbed 2,112 hectares and rehabilitated nearly 1,720 hectares (2020: 5,124 hectares disturbed and 3,118 hectares rehabilitated).

Of the total land disturbed, we have rehabilitated 29% (37,000 hectares), with about 93,000 hectares requiring rehabilitation. We tailor our rehabilitation

efforts to reflect the local landscape and community needs. Where possible, rehabilitation takes place as mining activities cease in an area.

2021 activities

During the year, we launched our revised Environmental Policy, enhanced Group-level Environment and Closure Planning Standards.

The Standards support our industrial assets in meeting the Policy's commitments through the development of a comprehensive knowledge base, robust assessment of risks and opportunities, implementation of effective action and management plans, focused monitoring of outcomes, and ongoing continuous improvement.

The Environment Standard requires all industrial assets to develop asset-level targets for performance improvement. We developed a biodiversity and progressive rehabilitation guideline to drive a consistent approach to

setting, monitoring and tracking our land stewardship performance.

Training and capacity-building workshops to support implementation have been initiated to achieve substantial asset-level alignment with the updated Standards by December 2023.

As detailed in Responsible Citizenship, we also undertook a Group-wide cultural heritage review, which resulted in the development of a standalone Cultural Heritage Standard. This Standard elevates the visibility and priority of cultural heritage management across the business, a critical consideration in land stewardship, and establishes clear performance expectations for all industrial assets.

Protected areas and biodiversity

We own, lease, or manage around 100,000 hectares adjacent to protected areas and around 187,000 hectares adjacent to high biodiversity areas. Industrial assets are required to implement systems to manage biodiversity conservation and compliance and establish biodiversity baselines for use in the completion of risk-based materiality assessments. These form the basis for the identification and management of biodiversity-related risks and opportunities, including natural capital (ecosystem services) and nature-based solutions, together with consideration of any emerging requirements.

Land stewardship continued

Our approach aligns with ICMM Principles and Performance Expectations requirements and reinforces our commitment to 'no net loss of biodiversity'. We require that our industrial assets conduct comprehensive biodiversity surveys and develop mitigation action plans. We monitor progress against these plans and incorporate updates through biodiversity report cards.

Our internal working groups, comprised of internal global subject matter experts, participate in international organisations and partnerships, such as ICMM and Proteus, in the development of updated guidance and interact with external associations, including the ICMM, to share best practices and support continuous improvement. This continues to strengthen our approach and commitment to responsible land stewardship and nature, and facilitates the sharing of best practices across our global operations.

During the year, the working groups met regularly to:

- leverage global expertise and shared learnings
- develop and implement enhanced governance in the areas of land rehabilitation, closure planning, biodiversity, and ecosystems services, and
- support progress against our internal biodiversity and progressive rehabilitation targets and KPIs.

In 2021, we finalised a partnership agreement with Proteus, the UN Environment Programme World Conservation Monitoring Centre's specialist biodiversity assessment centre. As a Proteus partner, we have access to tools, datasets, and expert support, essential for effective assessment and management of potential ecosystem impacts.

Rehabilitation and successful closure

We recognise that we are custodians of the land on which we operate and are committed to responsible land ownership and meeting community expectations. Where feasible, we conduct progressive rehabilitation on previously disturbed areas, once active operations have completed.

Mining is, by definition, a temporary land use and, at the end of its operational life cycle, the land completes its transition to a post-mining land use. We develop closure plans, including progressive rehabilitation programmes, to incrementally restore the land over the life of an industrial asset. Financial estimates to complete this post-mining restoration are developed in consultation with external stakeholders, such as regulators and communities, before the end of operations, with financial assurance typically provided to government agencies prior to development or expansion.

In accordance with our Group Closure Planning Standard, our industrial assets are required to develop closure plans that include social and economic frameworks and consultation programmes, to facilitate a responsible and sustainable transition prior to the overall closure of the industrial asset. This social transition planning is aimed at minimising impacts on our workforce, local suppliers, and communities.

During 2021, we assessed the maturity of closure planning activities in relation to Life of Asset (LoA). This involved assets completing a self-assessment against the ICMM closure maturity elements. Our Internal Audit function performed verification across 25 operations to confirm accuracy of self assessments.

The results from Internal Audit's review show that there is a gap between the current maturity levels and the stated objective ('International Good Practice'), however no high priority issues were identified.

Moving forward, our key focus includes operations completing gap analyses against our Closure Standard, which includes a specific focus on social and economic transition and closure executions plans.

Working with our peers

In 2020-2021, we participated in the development and refinement of the ICMM Closure Maturity Framework, a tool for building a common understanding of closure concepts across an industrial asset's life cycle and across mining disciplines. The Framework aligns with ICMM's Integrated Mine Closure Good Practice Guide and was finalised in December 2020. As part of the Framework's development process, we conducted pilot testing of the tool at six representative industrial assets during 2020. In 2021, we expanded testing to include an additional 25 operations, representative of various regions, and commodity groups.

Next steps

- Industrial assets to complete gap analyses against the Environment and Closure Planning Standards, and initiate action plans to address any identified gaps.
- Complete Group-level reporting on our alignment with the ICMM's new Performance Expectations for land stewardship, biodiversity, and ecosystems services.

- Continue active participation in our global closure planning, biodiversity and land stewardship working groups, to encourage shared learnings and contribute to improved performance.
- Continue participation in our partnership with Proteus and with the ICMM's working groups on closure planning, biodiversity and nature, to identify additional opportunities for protection of the ecosystems in, or near, our activities.

Land stewardship continued

Case study

Boosting biodiversity-integrating targeted flora translocations in mine rehabilitation

Our industrial coal assets in Australia have a dedicated team overseeing land management activities. This includes developing standards and setting performance expectations and also validating performance for mine site rehabilitation, management of buffer or rural land, areas of biodiversity and mine closure. There have been various research activities regarding rehabilitation undertaken over many years,as well as a multi-year cattle trial at Liddell Mine in New South Wales that demonstrated the effectiveness of rehabilitated pasture areas, compared to nearby unmined areas.

Our Mangoola Coal Operations (Mangoola) are in the Upper Hunter Valley of New South Wales. The site's project approval requirements included a condition to develop procedures and investigate the translocation potential for a range of threatened flora, including two terrestrial and one epiphytic orchid species. Mangoola expanded its original compliance-based orchid translocation to include the salvage and translocation of a variety of non-threatened, but slow growing or recalcitrant flora.

The re-introduction of threatened species through translocation into restored landscapes is an emerging tool in biodiversity conservation. Translocation is the intentional movement of living organisms from one location to another.

Mangoola's industrial site has a high degree of species diversity, including at least 206 native flora species across its 750 hectares of land currently under rehabilitation. There are certain local species in pre-mining vegetation communities that are either extremely difficult to establish from seed, or very slow growing, once germinated. It was recognised that these species could potentially be translocated from pre-mining areas, rather than just being mulched as part of clearing activities. The initiative was to go beyond approval requirements for orchid translocation and add suitable additional species into mine rehabilitation, providing a multitude of benefits in terms of enhancing floristic diversity.

More than 3,500 orchids have been progressively relocated at Mangoola, well over the 1,000 the mine was required to re-establish for compliance. It is now an established rehabilitation practice and represents the largest-scale orchid translocation project in Australia.

Mangoola's terrestrial orchid translocation programme has contributed to the development of scientific knowledge for the conservation of these species through the publication of research findings in scientific journals. The project's learnings are applicable to future orchid and other threatened species translocations.

Catastrophic hazard management | Health and safety | Climate change | Water | **Land stewardship** | Human rights | Responsible citizenship | Responsible sourcing and supply | Our people

Land stewardship continued

Reducing emissions

During the year, our Sudbury Integrated Nickel Operations (Sudbury INO) completed its $288 million process gas and particulate emissions projects (PGP and PEP), which will improve air quality for the local community through the reduction of SO_2, as well as dust and metals emissions.

The PGP project started in 2005, when a scoping study examining innovative technical solutions was developed to further reduce smelter SO_2 emissions. Phase I, completed by 2015, focused on improvements and upgrades to the roaster process, acid plant and electric furnace, and the installation of new hybrid converters.

Phase II commenced in 2017 and included installing new secondary hoods on the converters, and a new fan and stack to improve capture of SO_2 in the converter aisle. Several other processes and equipment upgrades were completed that enabled Sudbury INO to reduce emissions, while increasing capacity.

Finally, the PEP portion of the work, which reduced particulate emissions, largely through the construction of new storage buildings and baghouses, commenced in 2018. This brought feed handling activities indoors and introduced a three-season vehicle tyre wash that reduces the generation of particulate in the plant and surrounding community.

The completion of the projects enhances Sudbury INO's ability to bridge the increasing requirements for its smelter to receive and treat third-party feeds as its existing mining operations transition to Onaping Depth at Craig Mine.

The PGP and PEP projects have Sudbury INO reducing its measured cadmium concentrations by 62%, a 50% reduction in nickel concentrations, and a 66% reduction in cobalt concentrations.

Sudbury INO is continuing to monitor SO_2 and particulate emissions at monitoring stations throughout the community. Since the projects' completion in 2021, Sudbury INO has met the site-specific standard commitments as set out by the Province, while continually increasing its production levels and contributing to the local economy.

Supporting reforestation

In October 2021, our Compañía Minera Lomas Bayas copper asset in northern Chile renewed an agreement with the National Forestry Corporation of Chile (CONAF).

In 1996, Lomas Bayas began to develop a reforestation and conservation strategy to help address the issue of desertification around the city of Calama in northern Chile. Since then, it has supported efforts to conserve the Calama Oasis, which includes the 20-hectare Explora Lomas Park.

In 2009, Lomas Bayas established an alliance with CONAF to continue the park's conservation efforts and offer an extensive environmental education programme. Visitors can participate in guided tours of the park to learn more about biodiversity, efficient water use, forest fire prevention, and environmental care. Cultural activities are also available, such as storytelling competitions and performances.

There are more than 2,000 trees in Explora Lomas Park, including varieties of Prosopis alba – the white carob tree – and Prosopis tamarugo – a flowering tree from the pea family known simply as Tamarugo. Both species are native to the desert and can survive in the most arid regions in the world.

This next phase of collaboration between Lomas Bayas and CONAF will focus on environmental education, research, and forestry development, as well as promote a new phase of the management of the white carob forest, benefiting the local agricultural communities.

Catastrophic hazard management | Health and safety | Climate change | Water | Land stewardship | **Human rights** | Responsible citizenship | Responsible sourcing and supply | Our people

Material topics

Human rights

We recognise we have the potential to impact human rights directly through our operations, and indirectly through our relationships with joint ventures, contractors, and suppliers. We are committed to respecting human rights and actively support our workforce, business partners and suppliers to understand and meet this commitment.

SDGs

Zero serious or major human rights incidents

0 →

2020: 0

Community complaints
(number received)

1,159 ↓

2020: 1,272

2021 highlights
- Launched updated Group Human Rights Policy and new Human Rights Standard, which significantly improves the articulation of our business performance expectations on human rights.
- Rolled-out our Human Rights Risk Rating tool.

Further information
Additional data is available in our ESG Data Book and GRI Index 2021 (Appendix One), and our extended Excel ESG Data Book, available here.

Read more
Further information on our approach towards human rights is available here

Performance in brief | **Material topics** | Additional Information

Catastrophic hazard management | Health and safety | Climate change | Water | Land stewardship | **Human rights** | Responsible citizenship | Responsible sourcing and supply | Our people

Human rights continued

Our ambition

To uphold and promote respect for human rights within the Group, and throughout our value chain to enable people's basic rights and freedoms. We aim to:

- avoid causing, or contributing to, adverse human rights impacts
- prevent or mitigate adverse human rights impacts linked to our operations, products, or services, through our business relationships
- make a positive contribution to the advancement of human rights of all people, including vulnerable groups. In the event we cause or contribute to an adverse impact on human rights, we provide for, or cooperate in, processes to enable an appropriate remedy.

Our approach

We demonstrate respect for human rights and seek to manage human rights risks at each stage of our business and, for industrial assets, at every stage of the project life cycle from exploration through to closure.

The United Nations Guiding Principles on Business and Human Rights (UNGPs) set out expectations for all businesses to respect human rights above and beyond compliance with national laws and regulations.

Our Human Rights Policy, which was developed in consultation with communities and external experts, articulates the fundamental elements of Glencore's approach, and how we fulfil our commitment to respect human rights. The Policy aligns with the ICMM Principles and the UN Sustainable Development Goals.

Through our policies, standards, and processes, we respect human rights in accordance with the United Nations (UN) Universal Declaration of Human Rights, the International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work, the UNGPs and the UN Global Compact.

If we cause or contribute to an adverse human rights impact, we investigate and report the incident internally and provide or participate in effective remediation, giving particular attention to vulnerable and disadvantaged groups.

We operate grievance processes designed to meet the UN's Guiding Principles (UNGP) effectiveness criteria, a source of continuous learning and based on engagement and dialogue. Where people have complaints or grievances, we aim to investigate and resolve them at the local level (see Social Performance).

2021 performance

There were no serious human rights incidents during the year.

In 2021, our local grievance mechanisms received 1,159 community complaints (2020: 1,272 complaints). The majority related to air emissions, most notably odour/fumes, which accounted for more than 20% of our total complaints. The remainder of the complaints were across a range of topics.

During the year, we launched our revised Human Rights Policy. We also developed a Human Rights Standard to support our industrial assets in activating our Policy commitments through integration of human rights risk, opportunity, and management

systems for business readiness. Our industrial assets have until December 2023 to substantially align with our Human Rights Standard.

In addition, we rolled-out our Human Rights Risk Rating tool, a customised methodology enabling consistent human rights risk profiling across Glencore's industrial assets portfolio with defined minimum management pathways.

2021 activities
Cobalt artisanal and small-scale mining (ASM) in the DRC

We recognise that artisanal and small-scale mining (ASM) is a source of employment and income generation in many countries and we support efforts to improve the operating conditions of legal ASM.

The sector is largely unmechanised and informal in nature, so it often presents significant safety and human rights risks. A key issue is the participation of children in the sector. A further issue occurs when artisanal miners illegally trespass on the property of large-scale mines, which introduces security and safety challenges.

Our KCC and Mutanda Mining mines, located in the DRC, are industrial mines and take a zero-tolerance approach towards child labour.

In the DRC, ASM is a source of employment for around 2 million people. Cobalt ASM is particularly prevalent near our KCC and Mutanda Mining operations. Our engagement with those involved in ASM focuses on how ASM and large-scale mining can sustainably co-exist as distinct yet complementary sectors of a successful mining industry in the DRC. Although our

Human rights continued

operations in the DRC have no third-party suppliers, including no ASM suppliers, we have a multi-pronged approach to ASM issues.

In response to safety incidents relating to intrusions by artisanal miners, KCC implemented and strengthened various mitigating measures to discourage unauthorised access onto its operating concession. During 2021, KCC built 38 km of a wall around its active operations, which has resulted in a significant reduction in the number of ASM intrusions.

KCC continues to monitor and manage intrusion incidents in line with its security procedures, which align with the Voluntary Principles on Security and Human Rights.

KCC's ASM management plan includes community engagement strategies to address local context factors that underpin issues in the ASM sector. Its projects include supporting children's education and alternative livelihoods:

- since 2016, over 55,000 children have participated in KCC's summer camps. The camps aim to keep children out of mining activities during school holidays, by providing them with meals and activities. During the camps, KCC highlights the dangers of ASM
- the construction of 10 schools and renovation of 14 schools, and providing equipment to 18 schools
- building a home for orphans and abandoned children to deter them from ASM activities.

Provision of equipment and finance for alternative livelihoods to various organisations benefiting over 2,000 individuals with more than 12,000 dependents during 2021. These include:

- creating cooperatives to provide goods and services to mining companies in Kolwezi, including Glencore and its contractors
- training and development in skills such as carpentry, mechanics, building and welding
- provision of equipment, seeds, fertilisers, and training to farming cooperatives.
- temporary projects targeting ex-ASM miners, including drain clearance in Kapata in 2021, that employed over 150 people.

As a major producer and marketer of cobalt, we support efforts to establish greater transparency in the value chain, and actively participate in third-party assurance of our responsible sourcing approach under the Responsible Minerals Initiative.

We also continue to support international initiatives and forums aimed at developing a responsible ASM cobalt sector in the DRC. We are a founding member and an active participant in the Fair Cobalt Alliance (FCA), which brings together supply chain actors and stakeholders to drive the development of fair cobalt by supporting the professionalisation of ASM site management: making mines safer, minimising environmental impact, and creating dignified working conditions for men and women working at the mines. For more information, see the FCA website.

Further information on how we responsibly source and supply our products is available in our Responsible Sourcing and Supply chapter.

Resettlement

We seek to avoid involuntary resettlement wherever possible. Where it is unavoidable, we follow International Finance Corporation Performance Standard 5. This seeks to minimise its impact through the full participation of affected stakeholders and a focus on building long-term productive livelihoods, in a manner conducive to their wellbeing and human rights.

In 2021, our South African coal business successfully relocated the remaining household from its Goedgevonden operation, and two households from its Impunzi operation. At Zonnebloem, an additional family will need to be relocated by 2031, in line with the amended life of mine plan. This family has recently expressed a desire for an urban relocation and has requested the operation to consider an earlier relocation, to which the operation has agreed. The operation is in the process of commissioning the compilation of a relocation action plan.

Prodeco's decision to relinquish its mining licences does not affect its commitment to the resettlement process and continues to work with the affected communities.

Grievance mechanisms

All our operations are required to have in place local complaints and grievance processes that are legitimate, accessible, predictable, equitable, transparent, and rights-compatible, in line with the United Nations' Guiding Principles (UNGP) effectiveness criteria. These processes encourage people to raise concerns with us without fear of recrimination. We commit to investigating all concerns in a manner that respects the rights of the complainant.

During 2021, we undertook a review of our local-level complaints and grievances (C&G)

Human rights continued

mechanisms to identify strengths and weaknesses across the Group. The purpose of the review was to facilitate shared learning, inform training needs, and improve practice.

Material was submitted by all industrial assets and reviewed against indicators developed to test for each of the eight UNGP effectiveness criteria:

UNGP Criteria	Objective
Legitimate	Enabling trust from the stakeholder groups for whose use they are intended, and being accountable for the fair conduct of grievance processes
Accessible	Being known to all stakeholder groups for whose use they are intended, and providing adequate assistance for those who may face barriers to access
Predictable	Providing a clear and known procedure with an indicative time frame for each stage, and clarity on the types of process and outcome available and means of monitoring implementation
Equitable	Seeking to ensure that aggrieved parties have reasonable access to sources of information, advice, and expertise necessary, to engage in a grievance process on fair, informed and respectful terms
Transparent	Keeping parties to a grievance informed about its progress, and providing sufficient information about the mechanism's performance to build confidence in its effectiveness and meet any public interest at stake
Rights-compatible	Ensuring that outcomes and remedies accord with internationally recognised human rights
A source of continuous learning	Drawing on relevant measures to identify lessons for improving the mechanism and preventing future grievances and harms
Based on engagement and dialogue	Consulting the stakeholder groups for whose use they are intended on their design and performance, and focusing on dialogue as the means to address and resolve grievances

The review found that further improvements are required to close gaps to effectively implement C&G processes to facilitate meaningful and responsive engagement and to meet UNGP criteria and user expectations.

We are in the process of implementing the review's recommendations of simplifying and regularly reviewing and updating documents. We have also improved knowledge on C&G mechanisms through training sessions. Our revised Social Performance Standard, rolled out during 2021, includes minimum requirements for C&G mechanisms. We have developed a UNGP aligned C&G process template for local use and adaption.

OECD complaints
In 2020, three human rights organisations lodged a complaint with the UK's National Contact Point (NCP) for the Organisation for Economic Co-operation and Development (OECD), in relation to alleged breaches of the OECD Guidelines for Multinational Enterprises by Glencore UK Ltd., (GUK), in connection with certain events at the Badila oilfield in the Republic of Chad (the Complaint). GUK participated in the UK NCP's initial assessment of the Complaint and, on 8 February 2021, GUK notified the UK NCP of its decision to accept the NCP's offer to facilitate a mediation process with the three organisations.

In June 2021, the UK NCP agreed to suspend the NCP proceedings (including the mediation process) until parallel legal proceedings were completed. In October 2021, the claimants under the parallel legal proceedings agreed not to proceed with service of the claim on GUK. However, potential other claims covering the same subject matter meant GUK chose not to

continue in the mediation process with the three organisations. GUK expects the UK NCP to now proceed to a further examination of the complaint, before producing its Final Statement later this year.

In early 2021, a group of NGOs filed a complaint before the NCPs of Australia, Colombia, Ireland, Switzerland, and the UK, against Cerrejón's sales agent and its then shareholders, Anglo American, BHP and Glencore. The complaint included allegations in respect of the impact of mining on local communities through dust, water abstraction and pollution, the displacement of local and indigenous populations, and inadequate due diligence and information disclosure by shareholders. Glencore does not believe that these allegations have merit.

At the time of the complaint's submission, Cerrejón was an independently managed and operated joint venture, and the three companies were equal shareholders. In January 2022, Glencore acquired full ownership of Cerrejón.

In early 2022, the Australian, Swiss and UK NCPs published an initial assessment of the complaint, offering to mediate between the parties. Subject to agreement on the terms of reference for the mediation process being acceptable, Glencore is prepared to participate in the mediation.

Working with security providers
We support, implement, and promote the Voluntary Principles on Security and Human Rights. We train our security employees and private security contractors on the Voluntary Principles and are clear about our expectations when engaging with public security.

Performance in brief | **Material topics** | Additional Information

Catastrophic hazard management | Health and safety | Climate change | Water | Land stewardship | **Human rights** | Responsible citizenship | Responsible sourcing and supply | Our people

Human rights continued

Our revised Security Standard, rolled out Group-wide during 2021, requires all our industrial assets to develop, implement and monitor security management plans to document the identified threats, risks, impacts, controls and management strategies within their area of influence, and mitigate security impacts and risks, based on the outcomes of the threat and risk assessment. The security management plans must align with the criteria listed in the Voluntary Principles.

The Security Standard requires all our industrial assets to implement the Voluntary Principles, unless their review of their internal and external security finds a low risk of security-related threats, risks and potential impacts.

Our internal HSEC audit programme assesses the adequacy and effectiveness of our industrial assets' security management plans. During 2021, our internal HSEC audit team evaluated these plans' compliance with the Voluntary Principles at Volcan (Peru), Nikkelverk (Norway), Kazzinc (Kazakhstan), Pasar (the Philippines) and Astron (South Africa) industrial assets.

The audit considered the industrial assets' security risk and location (particularly in relation to social unrest and criminal activity), impacts and interactions with local communities and the presence of Indigenous Peoples. Subject matter experts participated in the audit process.

The audit found evidence of good practices across the Group. In particular:

- continuous security risk assessments
- use of technology, such as thermal cameras and sensor equipment, use of drones and multiple security check points prior to entry and exit
- counselling for security personnel, if required

- memorandums of understanding and/or defined communication channels with public security providers and
- regular engagement between private security and operations management, and clearly defined rules of engagement.

In addition, the asset-specific findings of the 2020 internal audits were evaluated as being addressed during 2021.

The audit also found that the VPs requirements are not consistently applied across our industrial assets and recommended a need to:

- raise awareness through corporate campaigns and communication
- formalise training sessions on VPs implementation and impacts
- integration of human rights risk assessments into security risk assessments and
- develop standard security and human rights methodology across all industrial assets enforcing accountability.

We will address these recommendations during 2022.

In addition to the work undertaken by Internal Audit, our South African ferroalloys business partnered with an external provider to conduct an independent Voluntary Principles compliance assessment. The assessment found good senior management understanding of the local context and the potential for conflict, and of the risks associated with security providers. It also noted the significant efforts undertaken to develop robust policies, procedures and guidelines to advance the implementation of the Voluntary Principles.

Next steps

- Industrial assets are undertaking gap assessments against the Human Rights and Security Standards to inform action plans and compliance prioritisation.
- Industrial asset gap assessments and action plans will be monitored to assess compliance and identify further gaps.
- A series of guidance notes and bespoke training will be developed to support implementation of the standards.
- Continue to review the efficacy of the Glencore Human Rights Risk Rating tool and update for continuous improvement.

Performance in brief | **Material topics** | Additional Information

Catastrophic hazard management | Health and safety | Climate change | Water | Land stewardship | **Human rights** | Responsible citizenship | Responsible sourcing and supply | Our people

Human rights continued

Case study

Addressing food security in South Africa

Glencore Coal South Africa is implementing the Mpumalanga Winter Wheat initiative, a pilot project repurposing remediated coal mine land and using mine water for subsistence farming in an area not known for winter cropping.

The Mpumalanga Winter Wheat initiative aims to improve smallholder subsistence agricultural practices with facilitated market access for surplus produce.

With an initial one-year time frame and potential extension if proven to be successful, the pilot aims to test:

- the feasibility of utilising remediated mine land and mine water to grow commercially viable winter wheat crops
- the community desirability of winter wheat cropping
- the viability of commercial cropping and capacity to meet market requirements.

The Mpumalanga Winter Wheat pilot is being undertaken in partnership with the Mine Water Coordinating Body (MWCB), a multi-stakeholder organisation formed in 2016 to foster collaboration between public and private stakeholders of the Upper Olifants Catchment in the Mpumalanga Coalfields, of which Glencore is a founding financial partner.

Other partners of the Winter Wheat project include the Impact Catalyst (financial), ICMM (financial and advocacy), Kelloggs (technical assistance, access to seed and market facilitation), and Business for Development (project execution, monitoring and reporting).

Glencore's contribution comprises access to land, water for irrigation, funding, and support for communities, with potential to scale to commercial levels.

This multi-stakeholder approach, facilitated by the MWCB, is expected to yield sustainable transformation as it leverages collective partner capabilities to address the crop-to-market agricultural supply chain.

Human rights continued

Case study

Strengthening human rights in a challenging operational environment

Our Antapaccay copper asset is in the Peruvian province of Espinar. It has 13 communities in its direct area of influence and, under Peruvian law, each community has its own governance structure with agreements made in community assemblies.

In Peru, the publicly funded health, water infrastructure and education services are often of relatively low quality. This situation generates multiple socio-economic needs. It is in such context that there is an expectation in Peru's mining regions that mining companies will address communities' needs.

The operating context is further exacerbated by political conflicts and a distrust of government authorities and public security providers, as well as their weakness in addressing social conflicts in a timely manner.

To mitigate the challenging operational context, Antapaccay has identified social investment projects and engages with the communities, through a structured dialogue process, to generate a culture of dialogue and agreement. It is also implementing a human rights

management framework to strengthen its internal commitment to upholding human rights and to build trust within the region.

Antapaccay is committed to its workers and contractors respecting human rights and operating without generating human rights impacts. Its annual human rights plan integrates stakeholders' concerns and priorities, builds local understanding of protecting women and vulnerable people against violence, and applies the Voluntary Principles on Security and Human Rights.

During 2021, Antapaccay undertook actions that visibly demonstrate its respect for human rights. These included:

- Completing a human rights due diligence process and identifying risks.
- Forming a human rights committee, led by the General Manager, with representatives from the general management team. The committee meets monthly to monitor the progress of the annual human rights plan.
- Internal and external training on Antapaccay's human rights management framework and its objectives and commitments.
- Building capacity through training 256 companies (of which 39 were local). Training was also provided to around 1,500 workers, 148 private security workers, the 25 members of the Human Rights Committee (internal and external training) and over 50 local and regional journalists.
- Antapaccay also informed the national government agencies about its human rights management framework.

- Eight workshops were held with over 300 women from the local communities, on human rights and violence against women and vulnerable population with the participation of Ni Una Menos, a Peruvian organisation that works in violence against women issues.
- Running focus groups and interviews with community leaders and representatives, employees and union members, suppliers and contractors and other stakeholders, to understand better their human rights perceptions and priorities.
- Undertaking a Voluntary Principles' risk assessment.
- Strengthening its complaints and grievances mechanism with continuous reports and satisfaction surveys. The mechanism is available in Spanish and Quechua and was recognised by Peruvian Ministry of Energy and Mines.
- Delivering its action plan on gender equality and equity, diversity and inclusion, which provides training for women. This is supported by strategic alliances with external organisations such as Women in Mining Peru, to promote gender equality, diversity, and inclusion to Antapaccay's workers and communities and the Women Emergency Centre. In addition, Ni Una Menos run workshops with local women on violence against women or vulnerable people.

Human rights continued

Case study

Strengthening human rights while exiting an asset

The Prodeco Group (Prodeco) is an integrated industrial asset that includes open-pit thermal coal mining operations (La Jagua and Calenturitas mines), an export port facility and a 39.76% stake in Fenoco SA, operator of the rail concession that links Prodeco's mines to its export ports. The operations are in the Cesar and Magdalena regions of Colombia.

In 2019, in line with Prodeco's commitment to continuous improvement, and the need to monitor and update the risks posed by its operations to stakeholders, Prodeco commissioned an independent human rights expert (FIP) to undertake a Human Rights Impact Assessment (HRIA). This process built on an earlier gap analysis that compared Prodeco's practices with the leading practice requirements of the United Nations Guiding Principles on Business and Human Rights. The 2019 HRIA involved directly engaging with local stakeholders and assessment participants and included consulting with 236 individuals, rights holders and interested stakeholders from within Prodeco's area of influence.

Prodeco's report on the 2019 HRIA included the current status of the actions undertaken to address the identified impacts. This report was communicated with a range of local stakeholders through different channels, including Prodeco's website, emails, newsletters, the local radio station, and social media.

In February 2021, Prodeco commenced the legal process of handing its mining contracts back to the Republic of Colombia. An initial care and maintenance was initiated as a result of local communities' opposition to Prodeco's mining operations continuing within the context of the Covid-19 pandemic. This was compounded by market conditions and the National Mining Agency's rejection of Prodeco's request to keep operations suspended until restart conditions were attained.

Considering the impact of the closure of its mining operations on its area of influence, Prodeco recognised the need to update the 2019 HRIA and it commissioned a revised HRIA to specifically address the relinquishment process and implications of mine closure. Prodeco then initiated a tender process to select a consultant to undertake the revised HRIA, with a focus on the relinquishment implications.

Prodeco commissioned Trust Consultores en Construcción de Confianza, a well-known human rights assessment consultant, for the impact and risk analysis, which is expected to be completed by the end of 2022. This study will seek to identify potential and actual, direct, and indirect human rights risks and impacts, including positive and negative impacts, caused and/or contributed to by Prodeco during the period March 2020 (date of suspension of operations) to date. It will consider, among others, matters related to labour, industrial safety, physical security, environmental, social, economic, and cultural perspectives.

Prodeco also established a specific dialogue process to address the relinquishment of its mining contracts. This process identified opportunities to discuss with affected stakeholders, the causes of the relinquishment, its potential economic and social impacts, and options to address these, together with possible activities to prepare the Cesar region for its post-mining transition. The dialogue sought to define a common vision for the future during a short, medium and long-term post-mining transition.

The dialogue process was designed and developed with the support of the Improbable Dialogues Platform, a well-known NGO in Colombia. Improbable Dialogues is an independent platform with expertise in facilitating conversations and providing mediation between communities, business sectors and government authorities with differing, or even opposing, views and backgrounds.

Stakeholders participating in the dialogue group included social and community leaders, agricultural associations, victims of Colombia's civil conflict, and entrepreneurs, and representatives from indigenous communities, unions, and universities.

The conclusions of this engagement process were set out in a document produced by the dialogue group. This report includes analysis, proposals, agreements, declarations, and collective actions to be undertaken during the transition to a post-mining scenario.

The second phase of the project, which will also be supported by the Improbable Dialogues Platform, will consider how to utilise the dialogue group as a stakeholder vehicle to manage and to deliver an inclusive just transition for the region in a post-mining scenario.

Material topics

Responsible citizenship

Mining activities can make a significant contribution to the national, regional, and local economies in which they operate through the provision of employment and training, tax, local procurement, social development, environmental stewardship and payments to governments. However, our presence may also have adverse social and environmental impacts, if it is not well managed. Our aim is to minimise adverse impacts from our activities and to build partnerships to support sustainable development and growth.

SDGs

Tax and royalty payments
(US$ billion)

7.6 ↑

2020: 5.8

Community investments
(US$ million)

68 ↓

2020: 95

2021 highlights
- Launched new Social Performance Policy and Social Performance, Cultural Heritage, and Security Standards, which significantly improve the articulation of our business performance expectations for social performance.
- Initiation of McArthur River Mine Indigenous Land Use Agreement negotiation process – facilitated by the Northern Land Council.

Further information
Additional data is available in our ESG Data Book and GRI Index 2021 (Appendix One), and our extended Excel ESG Data Book, available here.

Selected sustainability KPIs are subject to external assurance which should be read alongside the Basis of Reporting document, available on glencore.com. The assurance statement can be found on page 133.

Read more
Further information on our approach to responsible citizenship is available here

Responsible citizenship continued

Our ambition

To be an active and valued participant in all the communities that host us, to understand and manage our negative impacts and identify where we can make the most effective positive contribution.

Our approach

We aim to avoid harm to people from our activities, respect human rights, contribute to social and economic development of affected people and society more widely, and establish and maintain trusting relationships with stakeholders, through ethical and responsible business practices.

We strive to make a valued contribution to social progress through the production and marketing of commodities that provide the basic building blocks for development; through payments to governments such as taxes and royalties; through the provision of employment and business partner opportunities; and through social development in societies where we operate.

As a member of the societies where we operate, we work in partnership with government, civil society, and development agencies to share knowledge, build capacity and contribute to enduring social and economic outcomes.

We support economic development by providing local employment, procurement and contracting opportunities to local enterprises and by incorporating social transition strategies into our planning process to mitigate closure impacts.

We appreciate and respect the importance of cultural heritage and seek to avoid, or where avoidance is not possible, minimise impacts on identified places, items, or other aspects of historical and cultural significance. Wherever possible, we work with relevant parties, including the people whose heritage may be affected, to identify, protect and preserve heritage of significance.

We respect the rights, interests, perspectives, and aspirations of Indigenous Peoples and acknowledge their right to maintain their culture, identity, traditions, and customs. We operate in accordance with the ICMM Position Statement on Indigenous Peoples and Mining.

2021 performance

During 2021, we spent US$68 million on community development programmes (2020: US$95 million).

During the year, our payments to governments totalled US$7.6 billion (2020: US$5.8 billion), reflecting the value we contribute through the taxes and royalties we pay in our operating countries for our marketing and industrial activities. Corporate income tax contributed most to the year-on-year increase, of which nearly 80% was contributed to Australia, the DRC, and South Africa. The royalties paid by the Group increased, reflecting mainly higher commodity prices and demand.

Economic value added in 2021[1]

	Group	Africa	Australia	North America	South America	Rest of World
Revenues[2]	265,049	13,597	16,644	33,059	12,137	189,613
Payments to suppliers (operating costs)[3]	242,800	11,677	10,508	31,441	7,927	181,247
Economic value added	22,250	1,920	6,136	1,618	4,210	8,366
Royalties, duties and taxes[4,5]	7,632	2,974	2,478	495	686	999
Employee wages and benefits[6]	5,789	941	1,704	685	421	2,039
Sum of payments to providers of capital[7]	2,065	187	912	(257)	46	1,178
Community investments	68	13	6	2	14	33
Sum of capital expenditure	3,460	614	946	598	641	660
Economic value retained/contributed	3,235	(2,810)	90	94	2,403	3,458

1. For presentation purposes, figures are rounded to the nearest unit.
2. Revenues include sales, intercompany sales and other income.
3. Operating costs include all cost of goods sold excluding salaries, employee benefits, taxes, community investments, depreciation, impairment and mark-to-market.
4. Does not include total net refunds from governments on VAT, GST and sales tax amounting to US$1.862 million.
5. Does not include income taxes paid in Colombia, Peru, and Chile, relating to Glencore's proportionate ownership interest in joint ventures (Cerrejón, Antamina and Collahuasi) amounting to a total of US$855 million.
6. Excludes all costs relating to contractors; these are shown in operating costs.
7. Consists of dividend payments and interest expenses to third parties and Group entities. Payments to providers do not include any repayments of loans principals.

Responsible citizenship continued

Stakeholder group	Value flows	2021 results
Employees	• Wages and benefits	• 96% of our workforce is local to the respective countries where we operate
Suppliers, contractors and small businesses	• Procuring goods and services • Skills and enterprise development	• 81% of our global procurement spend is with suppliers and contractors local to the countries where we operate • More than 125,000 people benefited from our enterprise development and economic diversification investments
Local communities	• Community development • Use of shared public-use infrastructure • Education and skills development	• US$68 million spent on programmes supporting local community development, including about US$9.5 million on enterprise development and economic diversification of local entrepreneurs • Around 2.4 million people living near to our industrial assets have benefited from our community investment activities, including environmental initiatives, healthcare facilities, education programmes and enterprise development • US$600,000 spent on infrastructure for water processing and distribution, including more than 30 kilometres of pipework and infrastructure • US$2.2 million spent building or maintaining over 34 kilometres of roads • US$2 million invested in residential, healthcare, recreational and other types of shared infrastructure
Local and national governments	• Taxes and royalties	• US$7.6 billion paid to host governments in taxes and royalties

2021 activities

Socio-economic contribution

One way of measuring our social impact is through our socio-economic contribution scorecard. The scorecard demonstrates our efforts to meet both societal and business objectives. The scorecard examines the key value flows that our assets create for four principal stakeholder groups.

Social Issues

In addition to Covid-19 presenting unprecedented health and medical challenges globally, it has exacerbated inequalities in many of the regions where we operate.

In 2021, we were not aware of any incidents involving interactions between local communities and our security providers.

In 2021, we finalised and rolled out our strengthened management approach to social performance via our updated Social Performance Policy and Standard. The Standard articulates our social performance expectations for business assets and operations including regarding stakeholder engagement, social investment, and social impact risk and opportunity responses. The standard was launched across the business via a series of technical webinars and training sessions.

Indigenous People and cultural heritage

Our business interacts with many diverse communities around the world. We respect the rights, interests and aspirations of Indigenous Peoples and acknowledge their right to maintain their culture, identity, traditions and customs.

We work to obtain the free, prior, and informed consent of Indigenous Peoples for new projects and changes to existing projects where significant adverse impacts are likely to occur, including as a result of relocation, disturbance of lands and territories or of critical cultural heritage. We seek, through good faith negotiation, to reach agreements with Indigenous Peoples who maintain an interest in, or connection to, the land on which we operate, formalising engagement processes and sustainable benefits.

Some of our industrial assets are located on or near the traditional lands of Indigenous Peoples. We engage in open and continuous dialogue with local and Indigenous communities affected by our activities to better understand their culture, views, and aspirations, and work with them to minimise adverse impacts and create enduring benefits.

At all industrial assets, our activities focus on practical and meaningful measures that can enhance the socio-economic capacity and wellbeing of our local and Indigenous communities. Our approach aligns with the ICMM Position Statement on Indigenous Peoples and Mining, demonstrating respect for Indigenous People's rights, interests, special connections to lands and waters, and perspectives.

Performance in brief | **Material topics** | Additional Information

| Catastrophic hazard management | Health and safety | Climate change | Water | Land stewardship | Human rights | **Responsible citizenship** | Responsible sourcing and supply | Our people |

Responsible citizenship continued

Some of our industrial assets have formal agreements in place with Indigenous groups including Indigenous Land Use Agreements in Australia and Impact Benefit Agreements (IBA) in Canada. Our Raglan Mine in Nunavik, Quebec, negotiated the first IBA in Canada in 1995. In South Africa, our alloys business engages with First Nations, Indigenous Peoples and Traditional Authorities living close to its operations, undertaking annual engagements with Traditional Authorities living around its operations.

During the year, our McArthur River Mine (MRM) commenced negotiation with the Traditional Owners, facilitated by the Northern Land Council (NLC), on an Indigenous Land Use Agreement (ILUA). In August, MRM and the NLC signed an ILUA Negotiation Protocol, which formalises the negotiation schedule, engagement and public announcement procedures, consultation funding, and dispute resolution.

MRM also commissioned an independent third-party archaeologist to undertake a review of the operation's cultural heritage management processes and update its cultural heritage management planning in line with current leading practice.

In 2021, we developed a standalone Cultural Heritage Standard which was launched across our industrial assets via a series of technical webinars and training sessions.

We continued to actively work with the Minerals Council of Australia (MCA) in an ongoing dialogue relating to legislative changes to cultural heritage laws and enhancing member policies and practices. Glencore is the chair of the MCA Indigenous Working Group.

Payments to governments

We pay all relevant taxes, royalties and levies required by local and national regulations in our host countries. The payments we make to the governments of the countries in which we operate include local, national, sales and employment taxes, government royalties, and licence and permitting fees.

In addition, we contribute to local economies through our use of local suppliers, wages and employee benefits, voluntary support of socio-economic initiatives such as health and education projects and infrastructure development.

We understand the detrimental impact of corruption on the capacity for regions and nations to fully realise rights and benefits due to them from resource development. We support efforts to combat corruption including through transparency initiatives. We welcome fiscal transparency, as it encourages the responsible management of revenues from extractive activities. We commit to disclose taxes, fees, and royalties related to mineral extraction to governments in accordance with the principles set forth under the Extractive Industry Transparency Initiative (EITI).

We are a supporter of the EITI and its principles of transparency and accountability. We participate in in-country forums supporting the EITI, and, at a corporate level, in the EITI Commodity Trading Transparency working group.

Our annual Payments to Governments Report includes information required by the EU Accounting Directive, detailing payments by country, project, and recipient. We also include our EITI disclosures on our payments to state-owned enterprises in EITI-member countries for the purchase of oil, minerals, and metals.

Next steps

- Industrial assets are undertaking gap assessments against the Social Performance and Cultural Heritage Standards to inform action plans and compliance prioritisation.
- Industrial assets gap assessments and action plans will be monitored to assess compliance and identify further gaps.
- A series of guidance notes and bespoke training will be developed to support implementation of the standards.

Performance in brief | **Material topics** | Additional Information

| Catastrophic hazard management | Health and safety | Climate change | Water | Land stewardship | Human rights | **Responsible citizenship** | Responsible sourcing and supply | Our people |

Responsible citizenship continued

Case study

Group-wide cultural heritage review

In 2020, we established an Indigenous Relations and Cultural Heritage Working Group with representatives from all our Australian industrial assets to review our approach to Indigenous engagement and assess our current heritage management governance, standards, and practices.

The review established our baseline corporate knowledge and cultural heritage management practices and categorised our Australian assets in terms of their cultural heritage risk profile. An external third party, Australian Cultural Heritage Management (ACHM), was engaged to undertake the review.

During 2021, we completed the Australian review of cultural heritage management. It found that while our Australian assets are aware of, and manage, cultural heritage risk, approaches vary considerably. The review recommended development of a Group-wide cultural heritage management standard to provide clear guidance on cultural heritage management expectations, including stakeholder engagement processes for achieving community consent.

In Australia, we have also been actively participating in a range of state and national industry association working groups that are considering the industry's position on cultural heritage management in Australia.

Expanding the review Group-wide

During 2021, we progressed our cultural heritage review Group-wide. The purpose of this asset-level review was to identify the level of heritage risk and highlight gaps in systems and processes that require management action to ensure robust, consistent cultural heritage practice across Glencore's industrial business.

Utilising a sample of industrial assets deemed to be high potential for cultural heritage exposure, the international review aimed to provide an indication of the level of heritage risk across the Glencore business. We surveyed 28 industrial assets in 10 countries (excluding Australia). The results showed nearly 80% had completed specialist cultural heritage assessments or studies and, of these, over 70% had known cultural heritage sites or places of significance on the industrial asset's lease holding and/or in close vicinity of the industrial asset (e.g., in a neighbouring community).

The review concluded that, for the industrial assets sampled, there are no immediate concerns regarding cultural heritage management.

Following the completion of the Group-wide cultural heritage reviews, we developed a standalone Cultural Heritage Standard. This Standard will elevate the visibility and priority of cultural heritage management across the business, and establish clear performance expectations for all industrial assets including specific requirements to:

- establish local cultural heritage context and baselines
- identify cultural heritage risks, impacts, and opportunities and implement commensurate management plans
- ensure qualified and competent professionals are engaged
- undertake stakeholder engagement consistent with the principles of the Social Performance Standard
- implement appropriate governance and systems to monitor, report and review.

Going forward, we are prioritising further engagement in countries where we have a strong operational presence and where there is a weaker alignment between legislation and leading practice (e.g., Canada, Kazakhstan, and Peru). In these countries, we will identify an independent cultural heritage expert and work with this expert to review each asset's cultural heritage management system against leading practice and, where necessary, identify areas for improvement.

Responsible citizenship continued

Case study

Respecting cultural heritage

We commit to engaging and consulting with our Traditional Owners and Custodians, local and Aboriginal and Torres Strait Islander workforce and cross-cultural consultants in the development of Cultural Respect Strategy initiatives.

Our McArthur River Mine (MRM) in Australia is surrounded by the Northern Territory's Gulf Region communities,

a huge area that includes 120km from the operation to MRM's Bing Bong Loading Facility. MRM's operations are located on Gudanji land and MRM engages with the Gudanji, Yanyuwa, Garrwa and Marra people in the four language groups in the Gulf Region. MRM is also located 65 kilometres south-west of the Borroloola Township. MRM's approach is consistent with the principles of Free, Prior and Informed Consent.

MRM recognises that cultural respect is achieved when it ensures an accessible, responsive, and safe workplace for everyone; a workplace where everyone's cultural values, strengths and differences are respected. MRM's Cultural Respect Strategy supports a welcoming environment for people from Aboriginal and Torres Strait Islander backgrounds by displaying flags, artwork,

signage, and acknowledgement of Traditional Owners.

Cultural awareness training, supported by cultural advisors from the local community, includes mandatory courses on Australian Indigenous cultural awareness for all employees and contractors. Information and training are also provided on working with cultural differences and employees are provided with the opportunity to engage with local Elders to further their understanding of local cultural practices, protocols and values.

Cultural workshops are held on a regular basis, where local Elders are passing on their knowledge of traditional cultural skills such as spear making, basket weaving, and making bush medicines and tucker.

MRM is implementing its Cultural Heritage Management plan in partnership with Aboriginal stakeholders including management of Sacred Sites and Cultural Heritage in line with updated policies, procedures, compliance and auditing.

Working with Traditional Owners, a Keeping Place has been established at the mine site village to preserve cultural artefacts and allow families to visit them. The stories of sacred and cultural heritage sites are being collected and documented to keep them alive for future generations and to share them with others where it is culturally appropriate.

MRM is supporting the establishment of the Gudanji Rangers to allow Traditional Owners to manage nature, as well as enabling local employment through a native tree planting programme that supports MRM's rehabilitation efforts.

MRM's local and Indigenous employment programme is promoting access to career opportunities for Indigenous communities. Its approach includes career roundtables and a youth mentoring programme at the Borroloola School, and also communicating career pathways to its operation through local schools, community organisations and networks. The programme has seen Indigenous employment rise from 18% to almost 25% during 2021.

In 2021, MRM participated in the Australian government's Juukan Gorge Inquiry Public Hearing. Our open statement, which Glencore provided as the current operators of the MRM, offered an apology and said sorry to the Indigenous people and Traditional Owners from the four language groups of Gudanji, Yanyuwa, Garrwa and Marra. While MRM has never destroyed sacred sites, we acknowledge that historical actions have clearly not met the expectations of MRM's Aboriginal community.

While we cannot change this history, we are committed to working together with Traditional Owners to better meet community expectations going forward.

In April 2021, MRM announced that it had started discussions with the Northern Land Council and Traditional Owners to negotiate an Indigenous Land Use Agreement in relation to MRM and the Bing Bong Loading Facility. The process will involve broad consultation with Traditional Owners on a variety of matters, including Sacred Sites and cultural heritage protection.

Responsible citizenship continued

Case study

Supporting enterprise development

Our coal, copper and ferroalloys commodity departments with an African presence, are supporting local small and medium-sized enterprise (SME) development through their Enterprise and Supplier Development (ESD) hubs.

We target establishing ESD hubs in major mining communities with a lack of employment opportunities and skills shortages to support sustainable economic growth. We recognise that small businesses are an integral part of revitalising local economies and have the potential to alleviate socio-economic challenges. Our ESD hubs can support the growth of these businesses with the ambition of enabling them to compete in our supply chain opportunities.

Over the last two years, we have rolled out ESD hubs both virtually and physically to try and meet the demands of economic inclusion and upskilling of our host communities. The ESD hubs offer:

- information for local community members
- support for established businesses
- source funding
- free consultations for SMEs and support in preparing applications for finance
- training on business skills
- mentoring on business development
- targeted programmes to equip SMEs with managerial, technical, and financial skills.

Our Africa-based coal, copper and ferroalloys commodity departments support local SME development through their ESD hubs.

The ESD hubs target a variety of small businesses with a special focus on minimum 51% black-owned suppliers, minimum 51% black women-owned suppliers or 18-35-year-old black youth-owned companies. Through the hubs, young people and women have benefited from the financial guidance and skills support, allowing them to be economically active and to grow their businesses.

In South Africa, in addition to the ESD hubs, our Supplier Portals enable local black-owned businesses to register their business profiles and access procurement opportunities. Those who register may qualify for business support and advice, helping to create employment and business opportunities that build capacity, skills and expertise.

The portal is supported by a one-year Enterprise Development Training Programme that equips small businesses with the right knowledge and expertise to grow their businesses. The programme covers various modules such as; strategic planning, an

introduction to a step-by-step guide to Glencore's tendering process, financial management, and legal and administrative aspects of business.

On successfully completing the training programme, SMEs are able to participate in Glencore's supply chain.

In the Democratic Republic of the Congo (DRC), our enterprise development programme (EDP) has created and sustained over 5,000 jobs since 2019. The EDP aims to provide business opportunities for businesses that are minimum 51%-owned by Congolese nationals and to in-source the procurement of goods and services within the DRC, to create and sustain local employment.

The EDP has had numerous successes, such as agricultural cooperatives that were once small-scale farms that grew into large-scale farms, and entrepreneurs that have become owners of construction and transport companies.

Responsible citizenship continued

Case study

Living in partnership with our local communities

Raglan Mine spans an area of nearly 70 kilometres and is located at the extreme limit of Northern Quebec. Since its inception, Raglan Mine has sought to work constructively with its local Inuit partners, a relationship that is enshrined in the Raglan Agreement.

Historically, the Raglan Agreement has focused on employment, skills and job training, local supply chain development, and environmental management. However, in 2013, Raglan Mine's senior management team identified a goal of developing new, strategic, and aligned approaches to its Community Social Involvement (CSI) programme to support delivering lasting value through capacity building and community social and economic development in the Nunavik region.

In 2018, a second review of the CSI programme was initiated in collaboration with Raglan Mine's Inuit partners. The result was Akkivik, 'give a leg up' in Inuktitut, with representatives from the Salluit and Kangiqsujuaq communities, together with Raglan Mine. Akkivik supports projects that seek to provide direct and long-term social and economic development in these communities and to uphold the spirit of the

Agreement. The projects have the following elements:

- Early involvement: pre-engagement and agreement on how to work together on community development initiatives.
- Participatory: structured dialogue-based mechanisms at multiple stages of the project cycle.
- Empowerment: a framework that promotes capacity building, self-reliance and empowerment through local ownership.
- Trust and respect: recognising the importance of communication to build shared understanding, respect, and trust.
- Asset based: learning about and building on the communities' strengths and resources.
- Inclusive: including those individuals who take on leadership roles in their communities, but may not participate in existing engagement activities.
- Culturally appropriate: reflecting the communities' values, communicating in the local language, and aligning with other community-based activities.

During the year, Akkivik contributed to a number of community initiatives, including providing CAD200,000 for community-led projects, donating CAD50,000 to the Raglan Agreement Scholarship fund and making in-kind donations (ship transportation, goods, services).

As the Raglan Agreement approaches its 25th anniversary, Raglan Mine is reflecting on the achievements that it and its Inuit partners have made together. Of these, many were realised following the 2013 review and Raglan Mine's change of approach to engagement and cooperation. In 2021, Nunavimmiut employees represented 19% of Raglan Mine's workforce, the value of local contracts had doubled from 2013, with a value of CAD 116 million in 2021, and a significant ongoing investment into the onsite training of the local workforce has been established.

Material topics

Responsible sourcing and supply

In addition to operating responsibly, we seek to incorporate social, ethical, and environmental considerations in our relationships with suppliers and customers. We are committed to understanding and addressing the risk of human rights violations, environmental impacts, and other concerns in our supply chains.

SDGs

Screening on environmental criteria

(number of suppliers)

5,814 ↑

2020: 4,260

Screening on social criteria

(number of suppliers)

5,767 ↑

2020: 3,993

New suppliers

(number of suppliers)

8,709 ↑

2020: 7,599

2021 highlights

- Developed a Group Responsible Sourcing Policy, which will be rolled out in 2022.
- Continued to develop and adapt our supply chain due diligence process to align to our Purpose.
- Strengthened our internal awareness and understanding of responsible sourcing processes.
- To ensure our continued compliance with market and regulatory responsible sourcing requirements, engaged with organisations such as the Responsible Mineral Initiative, Copper Mark, and London Metal Exchange.

Further information

Additional data is available in our ESG Data Book and GRI Index 2021 (Appendix One), and our extended Excel ESG Data Book, available here.

Read more

Further information on our approach to responsible sourcing and supply is available here

Responsible sourcing and supply continued

Our ambition

To understand and address social, ethical, environmental, and human rights risks in our supply chains in line with our Values.

Our approach

As a vertically integrated commodity supplier with a diverse commodity mix, we have a unique perspective on supply chains and make a valuable contribution across a range of responsible sourcing initiatives.

Our responsible sourcing strategy takes a risk-based approach to considering the production and sourcing of metals and minerals and procurement of goods and services.

An integral part of our responsible sourcing approach is supply chain due diligence for our metals and minerals supply chain. For our suppliers of metals and minerals, we conduct risk-based due diligence in accordance with the five-step approach framework defined in Annex I of the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict Affected and High-Risk Areas 3rd Edition.

Our risk assessment and management strategy identifies, and assesses risks, including those relating to Conflict Affected and High-Risk Areas (CAHRAs). We take a collaborative risk management and mitigation approach to the identified human rights risks within our supply chain.

2021 performance

During the year, we reviewed and revised our Supplier Standards, which will be renamed the Supplier Code of Conduct, and developed a Responsible Sourcing Policy. These will be rolled out Group-wide during 2022.

Goods and services

During 2021, our industrial assets reported 8,709 new suppliers (2020: 7,599). Following a risk-based approach, 5,814 suppliers (67%) were screened against environmental criteria (2020: 4,260) and 5,767 suppliers (66%) against social criteria (2020: 3,993).

Metals and minerals

In 2021, as in previous years, Glencore did not produce, process, or market any conflict minerals originating from the conflict areas defined by the US Dodd-Frank Act (tin, tungsten, tantalum and gold from the DRC and adjoining countries). Through our supply chain due diligence processes, we continue to deliver on our commitment to responsible source and supply.

In January 2021, the European Union's conflict minerals legislation came into force. Our approach incorporates this legislation for the relevant commodities in our supply chain. In addition, the London Bullion Market Association (LBMA) Good Delivery programme certifies our gold and silver refiners.

The Good Delivery List is only for refiners accredited by the LBMA as having implemented its Responsible Gold and/or Silver Guidance and producing bars that satisfy its high standards in terms of purity, quality, and physical appearance, as well as supply chain due diligence requirements.

Our industrial assets producing products that fall within the Good Delivery List's rules, which include BRM (silver), CCR (silver and gold), Kazzinc (silver and gold) and Portovesme (silver). These industrial assets have been audited against the standard to certify that they follow the OECD Guidance's five-step due diligence framework and have taken steps to actively combat money laundering, terrorist financing and human rights abuses, and to respect the environment.

2021 activities

Responsibly sourcing and supplying cobalt and nickel

We are a major producer of cobalt in the Democratic Republic of Congo (DRC) and we are committed to the responsible production of cobalt. We do not source any artisanal small-scale mining (ASM) material in the DRC, but we support the development of responsible ASM, working in partnership with others. Further information on our approach to ASM is available on pages 46-47.

We recognise that ASM is a reality, an important livelihood opportunity and part of the DRC. As such, Glencore has a role to play in helping legitimate ASM be as responsible as possible. In support of this, we joined the Fair Cobalt Alliance (FCA), and became actively engaged in international cobalt ASM forums, such as the Global Battery Alliance's Cobalt Action Partnership (CAP), and the Responsible Minerals Initiative, and we continue to engage on ASM in the DRC.

Many companies in the cobalt supply chain actively participate in initiatives to promote responsible ASM, however there are no cobalt ASM sites that could be certified as 'responsible' yet. As a first step towards certifiable responsible ASM, the CAP has invested in the development of an ASM standard accepted by both the DRC and the supply chain (the 'ASM Cobalt Framework').

We are supportive of the FCA's mission to transform ASM in the DRC in a positive manner, through eliminating and remediating child labour and driving the professionalisation of ASM through the
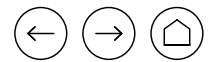
Responsible sourcing and supply continued

adoption of responsible mining practices, enabling dignified working conditions for men and women engaging in ASM activity, aiming to raise household incomes and improve financial resilience.

2021 was FCA's first year in operation. During the year:

- Training was given to 50 safety captains on first aid and 200 ASM workers on occupational health and safety risks. Four training sessions were held on children's rights.
- Protective equipment was distributed to 625 washer women and support was provided to establish a committee for female mineral washers.
- FCA paired literacy training with the creation of 14 financial savings groups for 350 mining community members.
- FCA also undertook child labour remediation and developed a referral system for children engaged in mining activities, including a notification protocol, remediation solution packages, and guidelines for case managers, in collaboration with Save the Children.
- Ten schools with around 6,000 students, received solar lighting to extend operating hours and increase the quality of education.

Our Murrin Murrin operation in Western Australia, and Kamoto Copper Company (KCC) asset in the DRC participate in the Responsible Minerals Initiative (RMI) Responsible Minerals Assurance Process (RMAP) for cobalt (KCC and Murrin Murrin) and nickel (Murrin Murrin). The RMAP uses independent third-party assessments of smelter and refinery management systems and sourcing practices to validate

conformance with the Joint Due Diligence Standard for Copper, Lead, Nickel and Zinc and with the Cobalt refiner supply chain due diligence standard. Both standards meet the requirements of the OECD Due Diligence Guidance.

Murrin Murrin achieved RMAP conformance in 2020, and KCC in 2021, and both are actively participating in the renewal process for continued conformance status.

We continued to work with the Cobalt Institute on its Cobalt Industry Responsible Assessment Framework (CIRAF). This framework strengthens the ability of cobalt producers and buyers to assess, mitigate, and report on responsible production and sourcing risks in their operations and supply chain. The CIRAF also enables a more coherent and consistent approach to cobalt due diligence and reporting by the cobalt industry. During 2021, we produced our first CIRAF report, which is available on our website.

Engaging on regulatory developments and evolving market requirements

Through our dedicated internal London Metals Exchange (LME) working group, we are working with our industrial assets who produce LME-branded products to prepare for the upcoming LME responsible sourcing requirements. We are on track to be fully compliant once the new requirements come into force in 2022.

A focus in 2021 was managing a smooth transition following Brexit, the United Kingdom's (UK) withdrawal from the European Union (EU). From 1 January 2021, as the EU/UK transition period ended, the EU's REACH legislation no longer applied in the UK. The exception is in Northern Ireland,

which is subject to the EU's REACH legislation due to the Northern Ireland protocol.

The UK has replicated the EU's REACH legislation with appropriate changes to make it operable in a domestic context. This approach resulted in similar regulatory requirements to manufacturing and importing chemical products into the UK being applied following the end of the transition period. The UK's REACH scheme has retained the key elements from the EU legislation of registration, evaluation, authorisation, and restrictions.

To support our compliance with the UK's REACH requirements, we monitored regulatory developments and established appropriate processes to ensure we can continue to deliver an undisrupted supply to both our UK and EU-based customers.

We continue to monitor EU, UK, and other jurisdictions to anticipate and determine possible regulatory impacts in our supply chains. When needed, we incorporate suitable measures in cooperation with our stakeholders to support our products' compliance with regulatory requirements and prevent disruptions of our supply chains. Our approach manages potential hazards from our products while making sure our workers, transporters, and customers, are aware of the possible hazards and of the necessary safety precautions for handling, storing, and transporting our products to prevent physical, personal, and environmental harm.

We are tracking discussions and developments on the EU's Proposal for a Directive on Corporate Sustainability Due Diligence. The proposal aims to improve corporate governance practices to better integrate risk management and mitigation

processes of human rights and environmental risks and impacts, including those stemming from value chains, into corporate strategies. Once the legislation is finalised, we will implement as appropriate.

Engaging throughout our value chain

We are an active member of relevant multi-stakeholder organisations (e.g., the Global Battery Alliance GBA) and industry organisations, including individual commodity associations, national associations, Eurometaux, ICMM, RMI, LME, and various other industry associations. Our participation in these organisations allows us to engage with our peers, downstream users of our products and other stakeholders. It provides an opportunity to contribute to the development of standards and position papers on regulatory initiatives such as the EU's Battery Regulation and Sustainable Corporate Governance Initiative, and also market initiatives like the LME passport. They are a common platform for the development of a coordinated and practical approach in demonstrating responsible supply chains.

As a responsible participant in the commodity supply chain, we share relevant information with our customers. We also continue to work with industry associations and due diligence agencies to deliver information sharing platforms.

Next steps

- Continue to implement appropriate processes to meet evolving regulatory requirements.

Performance in brief | **Material topics** | Additional Information

| Catastrophic hazard management | Health and safety | Climate change | Water | Land stewardship | Human rights | Responsible citizenship | **Responsible sourcing and supply** | Our people |

Responsible sourcing and supply continued

Case study

Piloting Re|Source, a responsible sourcing tracing solution

During 2021, we worked with other major metals and mining companies, a battery material supplier and a global electric vehicle (EV) pioneer to pilot Re|Source.

Re|Source is a transformational solution to trace responsibly produced cobalt from the mine to the electric car, proactively addressing the growing need for cobalt value chain visibility.

Re|Source utilises blockchain technology and zero knowledge proofs to link the physical material trade flows to their digital counterparts, thereby ensuring data integrity amongst competitors and protecting commercial supply routes.

Re|Source was founded by major cobalt producers, including Glencore, and is designed with input from responsible sourcing and supply chain experts from the participating companies, key battery raw material supply chain partners and industry bodies, such as the Cobalt Institute and the Responsible Minerals Initiative.

A pilot involved testing the solution in real on-the-ground operating conditions, from upstream cobalt production facilities in the Democratic Republic of the Congo (DRC) to downstream electric vehicle production sites.

This included the registration of individual 'big bags' into the platform using dedicated Re|Source seals and the scanning of unique QR codes at mines, various warehouses in South Africa, Finland, and Shanghai.

Transactions are traced through the remainder of the supply chain (crude refiners, fine refiners, cathode/precursor producers, battery manufacturers and original equipment manufacturers) at each change of ownership. This is achieved through mass balancing of physical inputs and outputs and 'handshakes', whereby electronic records documenting the contents of the various shipments between commercial counterparts are compared and verified against the physical deliveries.

We also piloted 'smart tag' technology to directly register 'big bags' without any human intervention, proving the concept for traceability throughout the entire journey from the DRC to various African ports.

During 2022, we will begin full end-to-end traceability programmes across complete supply chains (from mines to EV manufacturers) by prioritising on-boarding relevant members. We have extended the scope to include other metals applicable to the EV value chain, such as nickel and lithium.

This is of particular value for the midstream/downstream players that are directly involved in the sourcing and usage of multiple metals and are under ever increasing scrutiny to provide transparency on their raw materials and supply chains.

The platform includes the ability to record a broad spectrum of sustainability-related data, where parties share relevant ESG information with suppliers on company, site or product level.

Re|Source is also working closely with the Battery Passport project of the Global Battery Alliance. The Battery Passport is aimed at transforming the entire value chain to make battery production more responsible and sustainable.

Re|Source's member companies believe that these projects support each other and together they can deliver the overarching agenda of increasing sustainability in the wider battery supply chain.

More information on Re|Source is available at www.re-source.tech

Material topics

Our people

Our employees and contractors are fundamental to our success. At Glencore, our people are at the heart of everything we do. We foster an environment where we support and encourage different backgrounds, cultures and beliefs.

SDGs

Workforce
(employees and contractors)

134,914 ⬇

2020: 144,122

Employee diversity
(% female)

17% ⬆

2020: 16%

Management diversity
(% female)

20% ⬆

2020: 18%
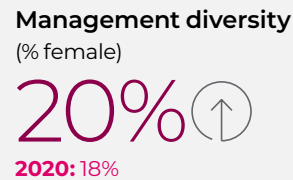
2021 highlights
- Launched Group Equality of Opportunity and Diversity and Inclusion Policies.
- Developed and rolling out a set of Human Resources Standards.

Further information
Additional data is available in our ESG Data Book and GRI Index 2021 (Appendix One), and our extended Excel ESG Data Book, available here.

Read more
Further information on our people is available in our 2020 Annual Report and here

Performance in brief | **Material topics** | Additional Information

| Catastrophic hazard management | Health and safety | Climate change | Water | Land stewardship | Human rights | Responsible citizenship | Responsible sourcing and supply | **Our people** |

Our people continued

Our ambition

To be recognised as a top employer in our operating regions and to foster an environment that supports and encourages different backgrounds, cultures, and beliefs.

Our approach

We believe that diversity is essential to our business and prohibit discrimination on any basis. We do not tolerate any form of racial, sexual or workplace harassment. We protect and uphold fundamental human rights around the Group, with fairness, dignity, and respect. We uphold the International Labour Organization Declaration on Fundamental Principles and Rights at Work. We recognise and uphold our people's rights to a safe workplace, freedom of association, collective representation, just compensation, job security and development opportunities.

2021 performance

Glencore's workforce is around 135,000 people, of which 17% are female (2020: 16%). We have seen a modest increase in the representation of female workers in our business but have made greater progress at management levels. Around 20% of our senior managers reporting to the management team are women, a slight improvement on previous years. We recognise we are still some way short of the 33% target from the Hampton Alexander review and will continue to look for opportunities to diversify our most senior teams.

Most of our employees work on mine and smelter sites and are employed through full time employment contracts. Contractors represent approximately 35-40% of our workforce, many of which operate alongside our full-time staff, providing essential service

and specialist maintenance support to our operations.

Employee turnover in continuing operations is 9.1%, with statistically insignificant differences between the retention rates for men and women.

2021 activities
Generating consistent and high standards of performance

Throughout 2021, we developed and implemented a set of Human Resources standards that bring more granularity and clarity to our overarching policy commitments. The standards ensure we develop as an organisation with consistently high levels of expectations and performance. They set out the specific requirements we expect our businesses to confirm to across a range of Human Resources topics including, but not limited to:

- performance management requirements
- recruitment practices, including mandatory reference and background checks for all new joiners
- the measurement of pay equity including gender pay gaps in our businesses
- transparent disciplinary and grievance procedures
- Group reporting requirements.

A process of assurance against the standards will be implemented in 2022.

Creating a more diverse and equitable organisation

We believe that a diverse business is a strong business. Operating globally requires us to understand and adapt to different cultures whilst maintaining our corporate culture and standards.

Employment type

Employees: 81,284   **Contractors: 53,630**

- Employees – permanent ■ Employees – temporary - - Contractors
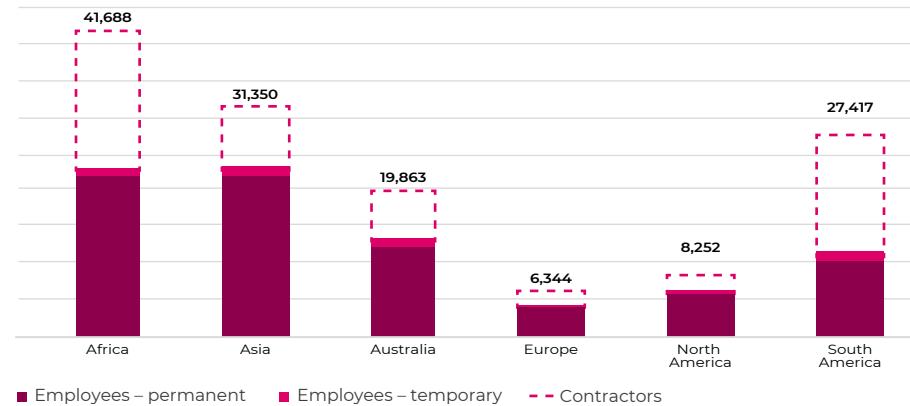
Gender balance of employees and percentage full-time

Male: 67,659   **Female: 13,625**

- Male ■ Female
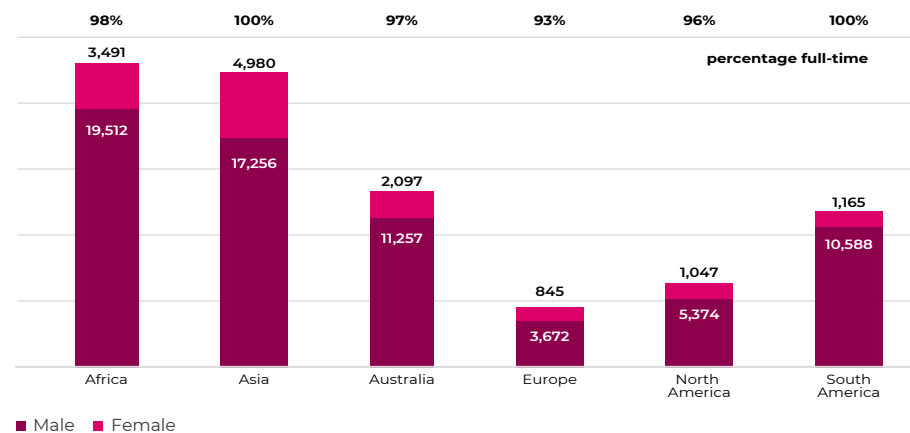
Our people continued

During 2021, we developed a Diversity and Inclusion strategy at Group level. While many of our commodity businesses have pursued diversity objectives separately, this is the first time the business has come together to develop a unified strategy and framework for the coming years.

This led to the development of our IDEAL framework – Inclusion, Diversity, Equity, Advancement and Local. The IDEAL framework spells out our commitment to creating an environment where employees can achieve their potential, regardless of their location. Its objectives are to:

- build a culture of intentional inclusion throughout the organisation
- better reflect society by increasing diversity of our workforce
- ensure fair treatment and access to opportunities for all in our programmes, processes, and practices, and
- remove perceived barriers and enable all groups to advance throughout the organisation.

In developing this Group strategy, we undertook a review of the work underway in each of our commodity businesses and assessed their level of maturity in relation to Diversity and Inclusion. This bottom-up process enables us to set relevant and contextual targets for each of our commodity businesses and our leaders. We have identified the global and local actions that will define the work programme and the specific targets for each element of the strategy over the coming year. Most or all commodity businesses are likely to have gender-based targets in the first wave.

The strategy and its delivery will be governed by a special diversity taskforce with representatives from management, Human Resources, and staff. Progress against actions will be reviewed quarterly and reported to the Board and will be disclosed in future Annual Reports.

Investing in our people
Our 2020 global People Survey identified several shared concerns, including training and development opportunities, open communications with management, and succession planning. At a Group and commodity business level, we have reviewed our training and development offerings to ensure they deliver value for the business and opportunities for staff.

Maintaining a strong pipeline of talent to staff our operations remains an area of significant focus for some of our assets, especially those in developed economies such as Australia. Each of our business units has targeted recruitment programmes aimed at school leavers and graduates, for example, bursaries for study and vacation work experience. We offer apprenticeships and graduate employment programmes that equip people with the operational and commercial skills they need to be effective in business.

Mental health
Raising awareness of the importance of mental health is a continued priority for the business. Mental health issues arising from the pandemic provided an additional challenge. Our newly updated Health Standard requires each industrial asset to identify and assess the physical and psychosocial wellbeing of workers through tools such as our Health Needs Assessment (HNA). Where key health issues, needs and interests of workers are identified, we develop and implement a Fit for Life wellness strategy.

Our businesses are also required to provide health promotion and education in line with the HNA including measures around maintaining work-life balance.

At a Group level our communication strategy has continued to raise awareness of mental health issues throughout the year. As part of this year's campaign, a global webinar was recorded in both English and French with experts from an external provider giving practical tips on how to recognise the signs of stress and build mental resilience in the workplace and at home, and focused in particular on some of the challenges of working remotely.

Covid-19
Our business and staff continue to operate despite the challenges presented by the pandemic. Many of our businesses have operated flexibly in response to changing rates of infection and restrictions. We have participated in vaccination programmes and aided governments and health authorities where appropriate. In some locations, this included our own vaccination programmes, which complement the efforts of local health authorities. Further details are available on page 28.

We continue to utilise external expert resources to guide our decision making and to assess current and potential impacts on the business. We host regular updates for our global HSEC community. The Group has continued to communicate with staff to ensure they are aware of their obligations in an ever-changing landscape of restrictions.

Industrial relations
We uphold the International Labour Organization (ILO) Declaration on Fundamental Principles and Rights of Work. We recognise and uphold the rights of our colleagues to a safe workplace, freedom of association, collective representation, collective bargaining, just compensation, job security and development opportunities. We believe in managing union relationships locally, where issues are considered part of the responsibility of our local management teams.

Next steps
- Continue to deliver our Diversity and Inclusion strategy.

Case study

Supporting a mentally healthy workplace

Mates in Mining (MATES) is an evidence-based suicide awareness and prevention programme developed for the mining industry.

The MATES integrated programme builds workforce capacity and support through utilising training as a tool to raise awareness about suicide and mental health. The programme works on the fundamental principle that increasing the capacity of individuals and communities to recognise suicidal behaviour, and prevent and respond to suicide, is essential to reducing the rate of suicide.

Workers on the ground directly benefit from this programme – those who are struggling with mental health issues and/or suicidal ideation; and those who want to help struggling workmates. The programme provides the bridge between a worker who is struggling and feeling overwhelmed and the help and support they need.

MATES has transitioned away from a more traditional 'help-seeking' framework to a 'help-offering' approach. Traditional workplace support structures inevitably rely on the individual who is struggling to reach out for help – which is challenging for many, particularly those struggling with mental health issues or suicidal ideation. Creating an environment where help offering is the focus is important.

In Australia, our coal business initiated the establishment of the MATES model in the mining industry and has recently committed to implement the programme across its operations as part of a three-year agreement. It is currently establishing the implementation plan, which includes a communication strategy. The programme will include:

Training	General Awareness Training (all workers)	One hour of general awareness training for the entire workforce to strengthen understanding of mental health and to encourage questioning of established stigma. At the end, workers are asked to volunteer to become Connectors.
	Connector Training (1 for every 20 workers)	A four-hour training programme that trains volunteers to become site champions, who are encouraged to take a leadership role in the promotion of a mentally healthy workplace.
	Applied Suicide Intervention Skills Training (ASIST) (minimum two workers per site)	A two-day training programme on talking to a person contemplating suicide to make this person safe. Using simple skills, an ASIST worker will listen to the person's concerns and respond to them appropriately with the objective of developing a contract or a safe plan with the at-risk worker.
Volunteer Support	Virtual Peer Support Network Meetings	All Connectors and ASIST workers have unlimited ongoing access to Virtual Peer Support Network meetings. These one-hour meetings are held twice a month on a virtual platform to build the capacity of the Connectors and ASIST trained workers. The sessions support and encourage learning from one another in their roles as workplace volunteers.
	Connector & ASIST Networking Meetings	Face-to-face peer network meetings are held in one region per quarter (Hunter Valley, Mudgee, Mackay and Emerald).
	Regular Communications	MATES maintain regular contact with the Connectors and ASIST workers. Their communications are aimed at keeping the Connectors and ASIST workers engaged in the programme and may include information about upcoming connector network meetings, site visits, promotional activities, funding opportunities and the like.
Case Management		Provided by qualified professionals (social workers and/or psychologists) to further assist workers who are struggling with their mental health and/ or suicidal ideation. A 'brokerage' model of case management is used; case managers do not provide clinical services, but connect the worker to appropriate services in their industry or their community.
		These services include workplace EAPs, relationship counselling, financial counselling, drug and alcohol counselling, etc.
24/7 Telephone Hotline		A dedicated telephone support line for workers and their families to access and receive support, night or day. Anyone can call the Helpline for support.
Critical Incident Response & Postvention		Where there is a critical incident (a death, serious injury, or accident), Mining Field Officers and/or Case Managers attend to support workers to deal with resulting emotions and reactions. Part of this Critical Incident Support process supports the onsite Connectors and ASIST workers to be vigilant with their workmates in case this incident has an adverse effect on any workers, recognising that Connectors and ASIST workers will invariably receive more workers reaching out to them in the days, weeks and months following a critical incident.
		Postvention is the support a Site may need after a worker or worker's family member has died by suicide. Postvention is designed to help those grieving after a suicide to ensure they get the appropriate help and support.

Additional Information

Commodity department overview

Coal

We are a leading producer of high-quality seaborne thermal coal and an important producer of both premium hard and premium semi-soft coking coal. We supply customers from a wide range of industries and locations, including major utilities. We have interests in various operating coal mines in Australia, South Africa and Colombia.

KPIs	2021	2020	2019
Fatalities at managed operations	0	0	1
Lost time injury frequency rate (LTIFR) (per million hours worked)	1.17	0.90	0.99
Total recordable injury frequency rate (TRIFR) (per million hours worked)	2.50	2.20	2.10
New cases of occupational diseases	82	62	28
CO_2e Scope 1 (million tonnes)	5.1	5.7	6.7
CO_2 Scope 2 – location based (million tonnes)	1.1	1.2	1.2
Total energy use (petajoules)	34	36	45
Water withdrawn (million m^3)	142	114	114
Community investment spend (US$ million)	5.2	6.7	7.9
Number of employees and contractors	17,328	19,146	24,835
Proportion of female employees (%)	18%	16%	16%

Operating highlights
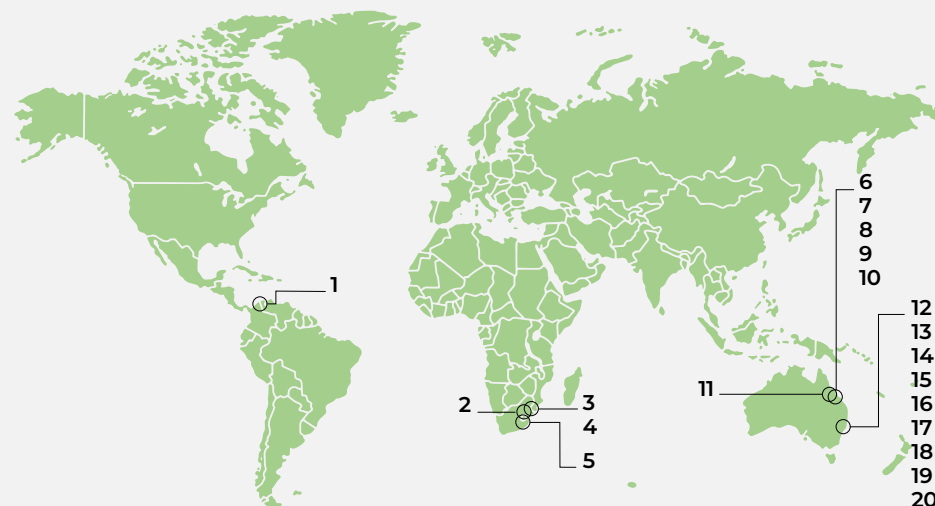
Coal production of 103.3 million tonnes was 2.9 million tonnes (3%) lower than 2020, reflecting Prodeco's care and maintenance status and lower domestic power demand and export rail capacity constraints in South Africa, offset by higher production at Cerrejón, following a Covid suspension and strike in 2020.

Own sourced coal production (mt)

103.3 ⌄

2020: 106.2

Thermal and metallurgical coal marketing volumes sold (mt)

72.3 ⌃

2020: 68.4

Key
1. Cerrejón[1]
2. Goedgevonden
3. Tweefontein
4. iMpunzi
5. Richards Bay
6. Collinsville
7. Newlands
8. Hail Creek
9. Oaky Creek
10. Rolleston
11. Clermont[2]
12. Ulan
13. Mangoola
14. HVO[3]
15. Liddell
16. Mount Owen
17. Ravensworth
18. Integra
19. Bulga
20. United Wambo JV

1 Remaining 66.6% interest acquired in January 2022.
2 Glencore equity accounts its 37.1% interest, manages the operation and markets 100% of the volumes sold.
3 Independently-managed JV, Glencore holds a 49% stake and manages the operation jointly with Yancoal, with marketing rights divided between both companies by geography.

Commodity department overview

Copper

We mine and process copper ore and have sizeable smelting and refining capacity. We have industrial assets in the major copper-producing regions. We are one of the world's largest copper suppliers and third largest producer of mined copper. We are one of the largest producers of cobalt, primarily a by-product from our DRC copper assets.

KPIs	2021	2020	2019
Fatalities at managed operations	3	1	9
Lost time injury frequency rate (LTIFR) (per million hours worked)	0.30	0.48	0.41
Total recordable injury frequency rate (TRIFR) (per million hours worked)	1.68	2.11	2.38
New cases of occupational diseases	4	44	63
CO_2e Scope 1 (million tonnes)	1.0	1.0	1.2
CO_2 Scope 2 – location based (million tonnes)	1.0	1.3	1.2
Total energy use (petajoules)	29	33	35
Water withdrawn (million m3)	294	339	330
Community investment spend (US$ million)	13.5	30.5	36.7
Number of employees and contractors	29,418	37,602	45,026
Proportion of female employees (%)	7%	9%	9%

Operating highlights
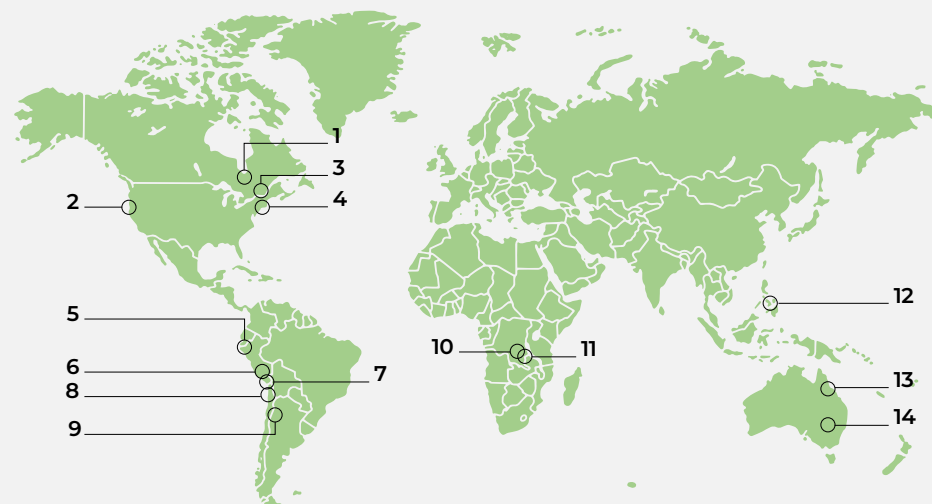
Own sourced copper production of 1,195,700 tonnes was 62,400 tonnes (5%) lower than 2020, mainly due to the Mopani disposal, expected lower copper grades at Antapaccay and lower copper by-products from our mature zinc and nickel mines.

Own sourced copper production
(kt)

1,195.7

2020: 1,258.1

Copper metal and concentrates marketing volumes sold
(mt)

3.1

2020: 3.4

Key
1. Horne smelter
2. San José recycling
3. CCR refinery
4. Rhode Island recycling
5. Antamina[1]
6. Antapaccay
7. Collahuasi[1]
8. Lomas Bayas
9. Altonorte
10. KCC
11. Mutanda
12. Pasar
13. Townsville Copper refinery
14. CSA mine

1   Independently-managed JV.

Commodity department overview

Ferroalloys

We deal in bulk and noble ferroalloys. We are one of the world's largest integrated producers of ferrochrome and primary vanadium.

KPIs	2021	2020	2019
Fatalities at managed operations	0	1	1
Lost time injury frequency rate (LTIFR) (per million hours worked)	1.37	1.76	1.50
Total recordable injury frequency rate (TRIFR) (per million hours worked)	2.66	3.90	2.91
New cases of occupational diseases	3	2	2
CO_2e Scope 1 (million tonnes)	4.1	3.0	4.1
CO_2 Scope 2 – location based (million tonnes)	6.0	4.3	6.0
Total energy use (petajoules)	29	22	29
Water withdrawn (million m3)	11	10	12
Community investment spend (US$ million)	5.9	4.4	6.1
Number of employees and contractors	15,196	14,205	16,708
Proportion of female employees (%)	19%	18%	18%

Operating highlights
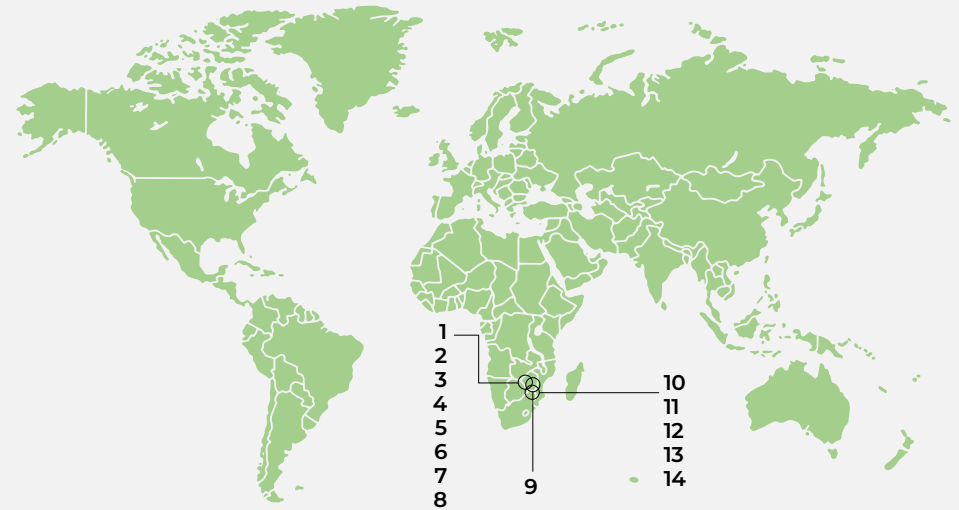
Attributable ferrochrome production of 1,468,000 tonnes was 439,000 tonnes (43%) higher than 2020, mainly due to the South African national lockdown in the prior year, and a strong operating performance.

Own sourced ferrochrome (kt)

1,468 ↑

2020: 1,029

Ferroalloys marketing volumes sold (mt)

9.3 ↑

2020: 8.5

Key
1. Rhovan
2. Boshoek smelter
3. Boshoek mine
4. Rietvly mine
5. Rustenburg smelter
6. Waterval mine
7. Kroondal mine
8. Wonderkop smelter
9. Chartech
10. Lion smelter
11. Thorncliffe mine
12. Lydenburg smelter
13. Helena mine
14. Magareng mine

Commodity department overview

Nickel

We are a leading global nickel producer and trader. We deal in metal, concentrates, intermediates and ferronickel, as well as producing associated by-products such as copper, cobalt, precious metals and platinum metals.

Operating highlights

Nickel production of 102,300 tonnes was 7,900 tonnes (7%) lower than in 2020, mainly due to the lengthy scheduled statutory shutdown and maintenance issues at Murrin Murrin in 2021.

Own sourced nickel production (kt)

102.3 ↓

2020: 110.2

Nickel marketing volumes sold (kt)

202 ↑

2020: 149

Key
1. Sudbury Integrated Nickel Operations
   – Sudbury smelter
   – Nickel Rim South mine
   – Fraser mine
   – Onaping Depth (project)
   – Nickel Rim Depth (project)
2. Raglan mine
3. Nikkelverk
4. Murrin Murrin
5. Koniambo Nickel

KPIs	2021	2020	2019
Fatalities at managed operations	0	0	0
Lost time injury frequency rate (LTIFR) (per million hours worked)	0.69	1.15	1.32
Total recordable injury frequency rate (TRIFR) (per million hours worked)	3.18	3.52	4.27
New cases of occupational diseases	1	0	0
CO_2e Scope 1 (million tonnes)	2.4	2.5	2.9
CO_2 Scope 2 – location based (million tonnes)	0.05	0.04	0.06
Total energy use (petajoules)	30	31	33
Water withdrawn (million m3)	116	133	116
Community investment spend (US$ million)	2.0	1.9	2.3
Number of employees and contractors	7,457	7,882	7,668
Proportion of female employees (%)	18%	17%	17%

Commodity department overview

Oil

We source and trade crude oil and oil products and have additional interests in oil and gas production sharing contracts. We also operate and have joint venture interests in storage, transportation and fuels distribution infrastructure as well as operating an oil refinery and lubricants manufacturing plant.

KPIs	2021	2020	2019
Fatalities at managed operations	0	2	0
Lost time injury frequency rate (LTIFR) (per million hours worked)	0.23	0.65	0.20
Total recordable injury frequency rate (TRIFR) (per million hours worked)	0.78	1.24	1.33
New cases of occupational diseases	0	0	0
CO₂e Scope 1 (million tonnes)	0.044	0.228	0.983
CO₂ Scope 2 – location based (million tonnes)	0.022	0.033	0.114
Total energy use (petajoules)	1	2	11
Water withdrawn (million m3)	0.2	1.0	1.6
Community investment spend (US$ million)	0.5	1.2	0.1
Number of employees and contractors	5,413	5,056	4,479
Proportion of female employees (%)	29%	29%	26%

Operating highlights
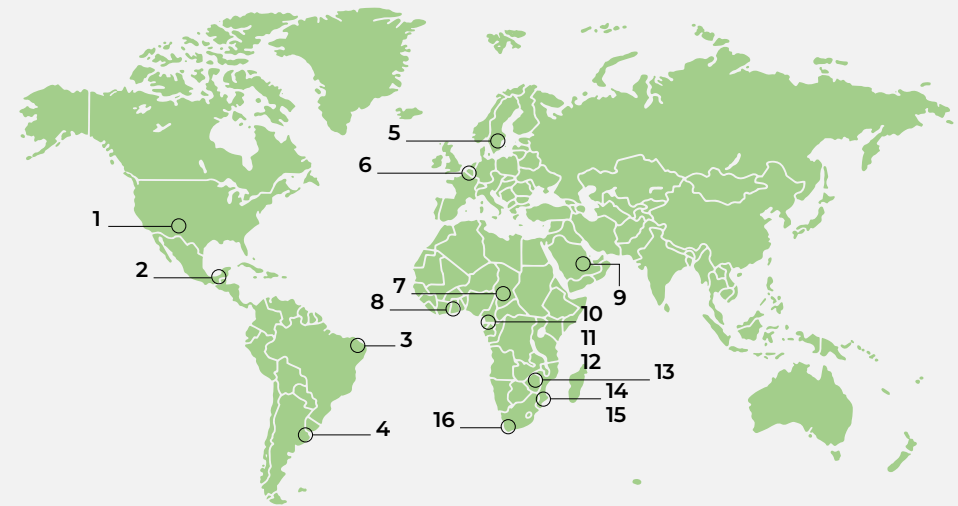
Entitlement interest production of 5.3 million boe was 1.3 million boe (34%) higher than 2020, mainly due to commencement of the gas phase of the Alen project in Equatorial Guinea. There was no production from the Chad fields in 2021.

Own sourced oil (kboe)

5,274 ↑

2020: 3,944

Crude oil and oil products marketing volumes sold (mbbl)

1,410 ↓

2020: 1,529

Key*
1. Chemoil Energy
2. AxfalTec Mexico*
3. Alesat
4. XStorage, Argentina*
5. Nordic Storage*
6. Sea-Tank 510*
7. Chad Oil Assets
8. Tema Fuel*
9. GPS Chemoil*
10. Cameroon Oil Assets
11. Block O, Equatorial Guinea
12. Block I, Equatorial Guinea
13. Zuva Petroleum*
14. XStorage, Mozambique*
15. Progas-Technoshore
16. Astron Energy

* Non-operated JV and equity share assets are not included on the map

Commodity department overview

Zinc

We are one of the world's largest zinc miners and producers. Our industrial assets include underground and surface mines, smelters, refineries, concentrators, hydroelectric facilities and warehousing. We trade in zinc and lead concentrates and valuable by-products such as sulphuric acid. We also deal in gold and silver as by-products of zinc mining and copper.

KPIs	2021	2020	2019
Fatalities at managed operations	1	4	5
Lost time injury frequency rate (LTIFR) (per million hours worked)	0.95	1.17	1.43
Total recordable injury frequency rate (TRIFR) (per million hours worked)	2.71	3.19	3.82
New cases of occupational diseases	19	16	14
CO$_2$e Scope 1 (million tonnes)	2.4	2.4	2.4
CO$_2$ Scope 2 – location based (million tonnes)	2.6	2.6	2.7
Total energy use (petajoules)	55	56	57
Water withdrawn (million m3)	435	437	442
Community investment spend (US$ million)	41.1	50.3	37.1
Number of employees and contractors	55,322	55,863	56,112
Proportion of female employees (%)	17%	16%	16%

Operating highlights
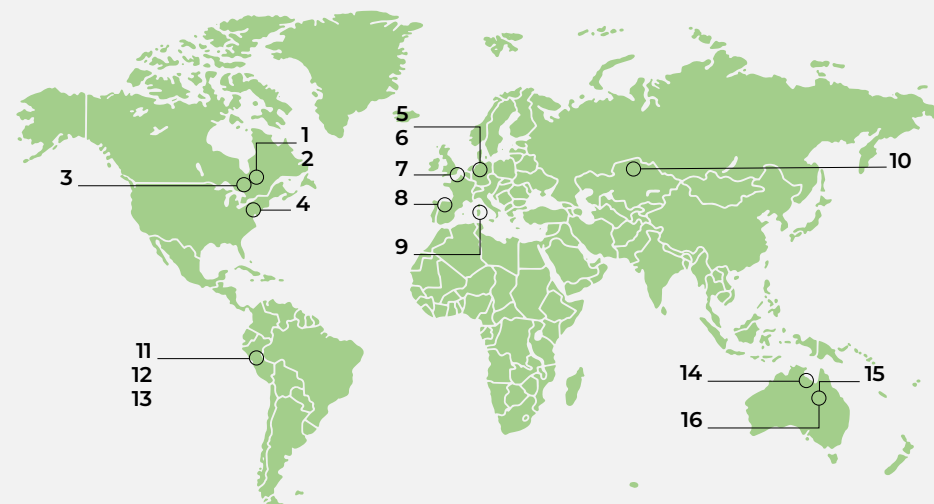
Own sourced zinc production of 1,117,800 tonnes was 52,600 tonnes (4%) lower than 2020, mainly reflecting the slower than expected ramp-up of the replacement Zhairem mine (part of Kazzinc), Mount Isa producing additional metal from ore stockpile drawdowns in the base period and lower grades at Kidd.

Own sourced zinc production (kt)

1,117.8 ⊘

2020: 1,170.4

Zinc metal and concentrates marketing volumes sold (mt)

2.7 ⊘

2020: 2.8

Key
1. Bracemac-McLeod mine
2. General smelting
3. Kidd operations
4. CEZinc refinery
5. Nordenhamer Zinkhütte
6. Nordenham Metall
7. Britannia Refined Metals
8. Asturiana de Zinc
9. Portovesme
10. Kazzinc
    – Kokshetau
    – Zhairem
    – Ust-Kamenogorsk
    – Serebryansk Bukhtarma
    – Ridder
    – Altay
11. Antamina
12. Volcan
13. Los Quenuales
14. McArthur River mine
15. Lady Loretta mine
16. Mount Isa mines

Environmental, Social and Governance (ESG) data

Environmental, Social and Governance data 2021

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
STANDARD DISCLOSURES										
Organisational profile										
GRI 102	102-1	Name of the organisation	Glencore plc							
GRI 102	102-2	a. A description of the organisation's activities b. Primary brands, products, and services, including an explanation of any products or services that are banned in certain markets	Glencore SR: Our business at a glance (p. 3) Glencore AR: Our business at a glance (pp. 2-3) Business model (p. 11), Glencore website: Who we are							
GRI 102	102-3	Location of organisation's headquarters	Baarermattstrasse 3 CH-6340 Baar Switzerland							
GRI 102	102-4	Number of countries where the organisation operates, and names of countries with either major operations, or that are specifically relevant to the sustainability issues covered in the report	Glencore SR: Our business at a glance (p. 3) Glencore AR: Our business at a glance (pp. 2-3) Business model (p. 11), Glencore website: Who we are							
GRI 102	102-5	Nature of ownership and legal form	Glencore AR: Shareholder information (p. 258)							
GRI 102	102-6	Markets served (including geographic breakdown, sectors served, and types of customers/ beneficiaries)	Glencore SR: Our business at a glance (p. 3) Glencore AR: Our business at a glance (pp. 2-3) Business model (p. 11), Glencore website: Who we are							

Key

*Independently assured by Deloitte LLP for 2021

n/a = not applicable

- Glencore AR = Glencore Annual Report 2021
- Glencore SR = Glencore Sustainability Report 2021   For all references to the AR and SR, go to www.glencore.com/publications

Refer to the Basis of Reporting on glencore.com for how our assured key performance indicators are defined.

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
GRI 102	102-7	Scale of the reporting organisation, including: number of employees, net sales, total capitalisation, and quantity of products provided	Glencore SR: Our business at a glance (p. 3) Glencore AR: Financial statements (pp. 125-233), Production by quarter (pp. 243-249)						EM-MM-000.B Total number of employees, percentage contractors EM-MM-000.A Production of (1) metal ores and (2) finished metal products	
GRI 102	102-8	Information on the organisation's workforce	Glencore SR: Our people (pp. 65-68) Glencore AR: Our people (pp. 34-37), Other: 'Additional information: Our People', extended ESG data book 2021 (see Excel file on our homepage)						EM-MM-000.B Total number of employees, percentage contractors	All numbers represent data as at 31/12/2021 as reported by our assets via our Group-wide reporting system.
		Total Workforce	Total workforce	159,345	144,122	**134,914**				Contractors are engaged to work in an office or industrial asset under Glencore's direct supervision and are, in essence, replacement persons. Examples include trade (or craft) personnel such as a mechanic, welder and electrician, an office based maternity cover or temporary staff due to seasonal workloads for a pre-defined period, or on a casual basis. Refer also to 'Additional information: Our People' in our extended ESG data book 2021 (see Excel file on our homepage).
			Total employees	89,092	87,822	**81,284**				
			Total contractors	70,253	56,300	**53,630**				
		Employee breakdown by role type	Executive/senior/middle management (%)	4%	4%	**7%**				
			Supervisors/administrators/technical (%)	26%	25%	**30%**				
			Operational/production/ maintenance/security (%)	70%	71%	**63%**				
		Employee breakdown by employment type	Full-time Employees	87,704	86,109	**79,694**				
			Part-time Employees	1,083	1,202	**921**				
			Employees – casual	305	511	**669**				
		Employee breakdown by employment contract	Permanent (%)	98%	98%	**98%**				
			Temporary (%)	1%	1%	**1%**				
GRI 102	102-9	Describe the organisation's supply chain including its main elements as they relate to the organisation's activities, primary brands, products, and services	Glencore SR: Our business at a glance (p. 3), Glencore AR: Business model (p. 11), Our marketing business (p. 53) Market review and outlook (pp. 54-58) Glencore website: Who we are					5, 8		

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
GRI 102	102-10	Significant changes during the reporting periods regarding size, structure, ownership, or its supply chain, including the location of or changes in operations, including facility openings, closings and expansions; changes in the share capital structure and other capital formation, maintenance and alteration operations; and changes in the location of suppliers, the structure of the supply chain, or in relationships with suppliers, including selection and termination	Glencore SR: Chief Executive Officer's review (pp. 6-7), Glencore AR: Chief Executive Officer's review (pp. 5-7), Financial review (pp. 48-52)							
GRI 102	102-11	Explanation of whether and how the precautionary approach or principle is addressed by the organisation	Glencore SR: Sustainability governance (pp. 12-14) ESG A-Z: Governance				7	1, 2		
GRI 102	102-12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organisation subscribes or endorses	Glencore SR: Sustainability governance (pp. 12-14), Stakeholder engagement (pp. 15-17), About this report (p. 18), Human rights (pp. 45-52), Responsible citizenship (pp. 53-60), Responsible sourcing and supply (pp. 61-64), ESG A-Z: Governance				1, 3, 4, 5, 6, 10	1, 2		In 2014 we signed up to the United Nations Global Compact and became a member of the International Council on Mining & Metals (ICMM). In 2015, Glencore joined the Plenary Group of the Voluntary Principles on Security and Human Rights Initiative. For further initiatives refer to the provided references.
GRI 102	102-13	Main memberships of industry or other associations, and national or international advocacy organisations	Other: Climate Report 2021: Pathway to Net Zero, Appendix 3 'Industry organisations'					1		Climate Report 2021: Pathway to Net Zero.
Strategy										
GRI 102	102-14	Statement from the most senior decision maker in the organisation about the relevance of sustainability to the organisation and the organisation's strategy for addressing sustainability	Glencore SR: Chief Executive Officer's review (pp. 6-7)					2		
GRI 102	102-15	Description of key impacts, risks and opportunities	Glencore SR: Material topics (pp. 19-20) Glencore AR: Our strategy for a sustainable future (pp. 12-15), Risk management (pp. 68-84)					2, 4		

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
Ethics and Integrity										
GRI 102	102-16	Organisation's values, principles, standards, norms of behaviours such as codes of conduct and codes of ethics	ESG A-Z: Ethics Glencore SR: Sustainability governance (pp. 12-14) Glencore AR: Our strategy for a sustainable future (pp. 12-15) Ethics and compliance (pp. 43-47) Glencore website: Code of Conduct Our Values Other: Glencore Ethics and Compliance Report				1, 2, 3, 4, 5, 6, 7, 10	1, 2, 3	EM-MM-510a.1 Description of the management system for prevention of corruption and bribery throughout the value chain	
GRI 102	102-17	Internal and external mechanisms for (i) seeking advice about ethical and lawful behaviour, and organisational integrity; (ii) reporting concerns about unethical or unlawful behaviour, and organisational integrity	Glencore AR: Ethics and Compliance (pp. 43-47) Glencore website: Code of Conduct Other: Glencore Ethics and Compliance Report				1, 2, 3, 4, 5, 6, 7, 10	1, 2, 3		
Governance										
GRI 102	102-18	Governance structure of the organisation, including committees of the highest governance body; committees responsible for decision-making on economic, environmental, and social topics	ESG A-Z: Governance Glencore SR: Sustainability governance (pp. 12-14) Glencore AR: Corporate governance (pp. 85-123)					1		
GRI 102	102-19	Process for delegating authority for economic, environmental and social topics from the highest governance body to senior executives and other employees	ESG A-Z: Governance Glencore SR: Sustainability governance (pp. 12-14) Glencore AR: Corporate governance (pp. 85-123)					1		
GRI 102	102-20	Whether the organisation has appointed an executive-level position or positions with responsibility for economic, environmental and social topics, and whether post holders report directly to the highest governance body	ESG A-Z: Governance Glencore SR: Sustainability governance (pp. 12-14) Glencore AR: Corporate governance (pp. 85-123)				1, 2, 3, 4, 5, 6, 7, 10	1		

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
GRI 102	102-21	Processes for consultation between stakeholders and the highest governance body on economic, environmental and social topics. If consultation is delegated, describe to whom and any feedback processes to the highest governance body	Glencore AR: Corporate governance (pp. 85-123) Glencore website: Board committees: glencore.com/who-we-are/governance				1, 2, 3, 4, 5, 6, 7, 10	1		
GRI 102	102-22	Composition of the highest governance body and its committees	Glencore AR: Corporate governance (pp. 85-123) Glencore website: Board committees: glencore.com/who-we-are/governance					1		
GRI 102	102-23	Whether the Chair of the highest governance body is also an executive officer	Glencore AR: Corporate governance (pp. 85-123) Glencore website: Board committees: glencore.com/who-we-are/governance					1		
GRI 102	102-24	Nomination and selection processes for the highest governance body and its committees, and the criteria used for nominating and selecting highest governance body members	Glencore AR: Corporate governance (pp. 85-123)					1		
GRI 102	102-25	Processes for the highest governance body to ensure conflicts of interest are avoided and managed	Glencore AR: Corporate governance (pp. 85-123)					1		
GRI 102	102-26	Highest governance body's and senior executives' roles in the development, approval, and updating of the organisation's purpose, value or mission statements, strategies, policies, and goals related to economic, environmental and social impacts	Glencore AR: Corporate governance (pp. 85-123)				1, 2, 3, 4, 5, 6, 7, 10	1		
GRI 102	102-27	Measures taken to develop and enhance the highest governance body's collective knowledge of economic, environmental and social topics	Glencore AR: Corporate governance (pp. 85-123)				1, 2, 3, 4, 5, 6, 7, 10	1		
GRI 102	102-28	Processes for evaluation of the highest governance body's performance with respect to governance of economic, environmental and social topics	Glencore AR: Corporate governance (pp. 85-123)				1, 2, 3, 4, 5, 6, 7, 10	1		

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
GRI 102	102-29	Highest governance body's role in the identification and management of economic, environmental and social impacts, risks, and opportunities	Glencore SR: Sustainability governance (pp. 12-14) Glencore AR: Corporate governance (pp. 85-123)				1, 2, 3, 4, 5, 6, 7, 10	1		
GRI 102	102-30	Highest governance body's role in reviewing the effectiveness of the organisation's risk management processes for economic, environmental and social topics	Glencore AR: Corporate governance (pp. 85-123)				1, 2, 3, 4, 5, 6, 7, 10	1		
GRI 102	102-31	Frequency of the highest governance body's review of economic, environmental and social impacts, risks, and opportunities.	Glencore AR: Risk management (pp. 68-84), Corporate governance (pp. 85-123)				1, 2, 3, 4, 5, 6, 7, 10	1		
GRI 102	102-32	Highest committee or position that formally reviews and approves the organisation's sustainability report and ensures that all material aspects are covered	Glencore AR: Corporate governance (pp. 85-123)					1		
GRI 102	102-33	Process for communicating critical concerns to the highest governance body	Glencore AR: Corporate governance (pp. 85-123)				1, 2, 3, 4, 5, 6, 7, 10	1		
GRI 102	102-34	Nature and total number of critical concerns that were communicated to the highest governance body and the mechanism(s) used to address and resolve them	Glencore AR: Corporate governance (pp. 85-123)				1, 2, 3, 4, 5, 6, 7, 10	1		
GRI 102	102-35	Remuneration policies for the highest governance body and senior executives; and how performance criteria in the remuneration policy relate to the highest governance body's and senior executives' economic, environmental and social objectives	Glencore AR: Directors' remuneration report (pp. 101-118)				1, 2, 3, 4, 5, 6, 7, 10	1		
GRI 102	102-36	Report the process for determining remuneration	Glencore AR: Directors' remuneration report (pp. 101-118)					1		

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
GRI 102	102-37	Indicate how stakeholders' views are sought and taken into account regarding remuneration, including the results of votes on remuneration policies and proposals, if applicable	Glencore AR: Directors' remuneration report (pp. 101-118)					1		
Stakeholder Engagement										
GRI 102	102-40	List of stakeholder groups engaged by the organisation	ESG A-Z: Stakeholder engagement Glencore SR: Stakeholder engagement (pp. 15-17) Glencore AR: Section 172 statement and stakeholder engagement (pp. 38-41)				3	10		
GRI 102	102-41	Report the percentage of total employees covered by collective bargaining agreements	Percentage of employees covered by collective bargaining agreement	71%	73%	**71%**	3	3	EM-MM-310a.1 Percentage of active workforce covered under collective bargaining agreements, broken down by U.S. and foreign employees	
GRI 102	102-42	Basis for identification and selection of stakeholders with whom to engage	ESG A-Z: Stakeholder engagement Glencore SR: Sustainability governance (pp. 12-14), Stakeholder engagement (pp. 15-17) Glencore AR: Section 172 statement and stakeholder engagement (pp. 38-41)				3	10		Gathered internally, but not reported externally.
GRI 102	102-43	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group, and an indication of whether any of the engagement was undertaken specifically as part of the report preparation process	ESG A-Z: Stakeholder engagement Glencore SR: Sustainability governance (pp. 12-14), Stakeholder engagement (pp. 15-17) Glencore AR: Section 172 statement and stakeholder engagement (pp. 38-41)					10		We engage with all stakeholder groups, at corporate, regional and local levels, to build meaningful relationships and understand their expectations and aspirations. We have fed our understanding of the topics of interest taken from this engagement into our materiality processes, to establish the areas of focus for our sustainability strategic review and the information we disclose in our sustainability reporting.

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
GRI 102	102-44	Key topics and concerns that have been raised through stakeholder engagement, and how the organisation has responded to those key topics and concerns, including through its reporting, and report on the stakeholder groups that raised each of the key topics and concerns	Glencore SR: Stakeholder engagement (pp. 15-17), Material topics (pp. 19-68) Other: Climate Report 2021: Pathway to Net Zero				1, 2, 3, 4, 5, 6, 7, 10	10		
Reporting Practice										
GRI 102	102-45	Entities included in the organisation's consolidated financial statements	Glencore AR: Financial review (pp. 48-52), Principal operating, finance and industrial subsidiaries and investments (pp. 231-233)							
GRI 102	102-46	Process for defining report content and the Aspect Boundaries and how the organisation has implemented the Reporting Principles for Defining Report Content	Glencore SR: Sustainability governance (pp. 12-14), Stakeholder engagement (pp. 15-17), About this report (p. 18), Material topics (pp. 19-20)					10		
GRI 102	102-47	Material topics identified in the process for defining report content	Glencore SR: Material topics (pp. 19-20)					2, 10		
GRI 102	102-48	Explanation of the effect of any restatements of information provided in earlier reports, and the reasons for such restatement	Glencore SR: About this report (p. 18)							The effects of restatements are not reported externally unless the data was previously subject to assurance by third parties.
GRI 102	102-49	Significant changes from previous reporting periods in the Scope and Aspect Boundaries	Glencore SR: About this report (p. 18) Glencore website: Basis of reporting					2, 10		The 'About this report' and the 'Glossary' sections of the Sustainability Report provide information on indicator definitions and reporting boundaries and, if applicable, material changes compared to last year. The definitions of our key sustainability performance indicators, which are subject to external assurance are also presented in our 'Basis of Reporting' document on our homepage.
Report Profile										
GRI 102	102-50	Reporting period for information provided	1 January to 31 December 2021					10		
GRI 102	102-51	Date of most recent previous report	2020							
GRI 102	102-52	Reporting cycle	Annual					10		

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
GRI 102	102-53	Contact point for questions regarding the report or its contents	info@glencore.com					10		
GRI 102	102-54	The claim made, if the report has been prepared in accordance with the GRI Standards	Glencore SR: About this report (p. 18)					10		
GRI 102	102-55	GRI content index, which specifies each of the GRI Standards used and lists all disclosures included in the report	Glencore SR: About this report (p. 18), Environmental, Social and Governance data 2021 (this appendix of the Glencore SR)							
GRI 102	102-56	a. A description of the organisation's policy and current practice with regard to seeking external assurance for the report	Glencore SR: Assurance statement (pp. 132-133) Glencore AR: Audit Committee report (pp. 98-99)							

MANAGEMENT APPROACH

Management Approach

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
GRI 103	103-1-a	Explanation of the material topic and its Boundary	Glencore SR: About this report (p. 18), Material topics (pp. 19-20)					2, 10		
GRI 103	103-1-b/c	b. The Boundary for the material topic including a description of where the impacts occur; the organisation's involvement with the impacts c. Any specific limitation regarding the topic Boundary	Glencore SR: About this report (p. 18), Material topics (pp. 19-20)					2, 10		
GRI 103	103-2	The management approach and its components	Glencore SR: Introduction to each material topic chapter (pp. 19-68)							
GRI 103	103-3	Evaluation of the management approach	Glencore SR: Introduction to each material topic chapter (pp. 19-68)							

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
SPECIFIC STANDARD DISCLOSURES										
ECONOMIC										
Economic Performance										
GRI 201	201-DMA	Disclosure on Management Approach	ESG A-Z: Communities Glencore SR: Responsible citizenship (pp. 53-60)					9		
GRI 201	201-1	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings and payments to capital providers and to governments	Total amount of payments to governments (US$ million)	7,674	5,794	**7,632***		9		Data excludes VAT. Responsible citizenship (pp. 53-60).
			Total amount of community investments (US$ million)	90	95	**68**		9		Responsible citizenship (pp. 53-60).
GRI 201	201-2	Financial implications, other risks and opportunities for the organisation's activities due to climate change	Glencore SR: Climate change and energy (pp. 29-35) Glencore AR: Climate change (pp. 19-26), Risk management (pp. 82-83) Other: Climate Report 2021: Pathway to Net Zero				9	4, 9	EM-MM-110a.1 Gross global Scope 1 emissions, percentage covered under emissions-limiting regulation / EM-MM-110a.2 Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Climate change-related financial implications and other risks and opportunities that may affect our business are disclosed in our standalone report Climate Report 2021: Pathway to Net Zero. A cross-reference table to the Task Force on Climate-related Financial Disclosures (TCFD) is presented on page 26 of the Glencore AR.
GRI 201	201-3	Coverage of the organisation's defined benefit plan obligations	Glencore AR: Note 24 to the financial statements (pp. 207-211)				9	4, 9		

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
Market Presence										
GRI 202	202-DMA	Disclosure on Management Approach	ESG A-Z: Communities, Our people Glencore SR: Our people (pp. 65-68)					9		
GRI 202	202-1	Ratios of standard entry level wage by gender compared to local minimum wage	ESG A-Z: Communities, Our people Glencore SR: Our people (pp. 65-68)					9		About 1% of our employees are paid around the local minimum wage rules.
GRI 202	202-2	Proportion of senior management and workforce hired from the local community at significant locations of operation	Glencore SR: Responsible citizenship (pp. 53-60) Other: Social Performance Policy					9		In 2021, 96% of our employees were local to the countries in which we operate, as were 77% of our managers. No additional senior manager information is available.
Indirect Economic Impacts										
GRI 203	203-DMA	Disclosure on Management Approach	ESG A-Z: Communities Glencore SR: Material topics (pp. 19-20), Responsible citizenship (pp. 53-60)					9		
GRI 203	203-1	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind or pro-bono engagement	Glencore SR: Responsible citizenship (pp. 53-60)					9		Our socio-economic contribution scorecard focuses on understanding the tangible results of our investments. Over time, the data collected will show how our development activities affect local economies.
GRI 203	203-2	Significant indirect economic impacts, including the extent of the impacts	Glencore SR: Responsible citizenship (pp. 53-60)					9		

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
Procurement Practices										
GRI 204	204-DMA	Disclosure on Management Approach	ESG A-Z: Communities Glencore SR: Responsible citizenship (pp. 53-60), Responsible Sourcing and Supply (pp. 61-64)					2		
GRI 204	204-1	Proportion of spending on local suppliers at significant locations of operation	Percentage of total spend with local suppliers (%)	74%	75%	**81%**		2		This indicator only covers procurement at industrial assets. The definition of 'local' means suppliers and contractors local to the country in which the procuring industrial asset operates.
Anti-corruption										
GRI 205	205-DMA	Disclosure on Management Approach	ESG A-Z: Ethics Glencore AR: Our strategy for a sustainable future (pp. 12-15) Our people (pp. 34-37) Ethics and compliance (pp. 43-47) Other: Global Anti-Corruption Policy					10	EM-MM-510a.1 Description of the management system for prevention of corruption and bribery throughout the value chain	
GRI 205	205-1	Total number and percentage of operations assessed for risks related to corruption and the significant risks identified	ESG A-Z: Ethics Glencore AR: Our strategy for a sustainable future (pp. 12-15) Our people (pp. 34-37) Ethics and compliance (pp. 43-47) Other: Global Anti-Corruption Policy				10	1		Detailed data is tracked and monitored for internal use only (due to confidentiality constraints).
GRI 205	205-2	Communication and training on anti-corruption policies and procedures	Glencore AR: Ethics and compliance (pp. 43-47)				10	1		For training statistics please refer to the separately issued Glencore Ethics and Compliance Report.

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
GRI 205	205-3	Confirmed incidents of corruption and actions taken	ESG A-Z: Ethics Glencore AR: Our strategy for a sustainable future (pp. 12-15) Our people (pp. 34-37) Ethics and compliance (pp. 43-47) Other: Global Anti-Corruption Policy				10	1		Refer to sections 'Chief Executive Officer's review' and 'Risk management – 4. Law and Enforcement' of the Glencore AR. Any cases of misconduct, including the giving or receiving of gifts, entertainment, incentives or any other financial advantage in return for improper performance of the recipient's function (corruption), are taken very seriously and disciplinary action is taken in accordance with internal policies. Due to possible confidentiality restraints and/or the possibility that an incident may be connected to an ongoing or related internal review or investigation, we do not report this data publicly.
Tax										
GRI 207	207-1	Approach to tax	Glencore's Group Tax Policy: glencore.com/group-tax-policy; Other: 2021 Payments to Governments report							
	207-2	Tax governance, control, and risk management	Glencore's Group Tax Policy: glencore.com/group-tax-policy							
	207-3	Stakeholder engagement and management of concerns related to tax	Glencore's Group Tax Policy: glencore.com/group-tax-policy							
	207-4	Country-by-country reporting	Other: 2021 Payments to Governments report					9		We comply with all legal requirements in accordance with OECD BEPS Action 13.

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
ENVIRONMENTAL										
Materials										
GRI 301	301-DMA	Disclosure on Management Approach	ESG A-Z: Environment				7, 8	6		
GRI 301	301-1	Materials used by weight or volume	Materials used by weight (million tonnes)	322	295	**297**	8	6, 8		Data reflects the total quantity of input, raw and process materials. Other data are tracked internally but are not reported externally.
GRI 301	301-2	Percentage of materials used that are recycled input materials	Secondary materials and recyclable wastes, ie scrap (%)	0.3%	0.3%	**0.2%**	8, 9	6, 8		
Energy										
GRI 302	302-DMA	Disclosure on Management Approach	ESG A-Z: Climate Change Glencore SR: Material topics (pp. 19-20), Climate change and energy (pp. 29-35), Glencore AR: Our strategy for a sustainable future (pp. 12-15), Climate Change (pp. 19-26) Other: Climate Report 2021: Pathway to Net Zero				7, 8	6		

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
GRI 302	302-1	Energy consumption within the organisation	Direct Energy (PJ)	125	102	**98 ***		6	EM-MM-130a.1 (1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable	
			– Coal (%)	18%	19%	**18%**		6		
			– Natural gas & Coal seam gas (%)	15%	13%	**12%**		6		
			– Mineral oil (%)	57%	57%	**58%**		6		
			– Renewable (hydropower etc.) (%)	9%	11%	**11%**		6		
			– Other sources (%)	1%	1%	**1%**		6		
			Direct energy by commodity (PJ)	125	102	**98**		6		
			– Aluminium	0	0	**0**		6		
			– Coal	40	31	**29**		6		
			– Copper	15	13	**13**		6		
			– Ferroalloys	6	5	**6**		6		
			– Nickel	28	26	**25**		6		
			– Oil	10	2	**1**		6		
			– Zinc	26	25	**25**		6		
			Direct energy by region (PJ)	125	102	**98**		6		
			– Africa	25	16	**13**		6		
			– Asia	15	15	**15**		6		
			– Australia	54	52	**52**		6		
			– Europe	1	1	**1**		6		
			– North America	8	7	**7**		6		
			– South/Latin America	22	11	**10**		6		
			Purchased electricity (PJ)	85	77	**80**		6		
			– Non-renewable (%)	81%	83%	**84%**		6		
			– Renewable energy (%)	19%	17%	**16%**		6		This includes electricity purchased in low carbon grids (with a country-wide grid emission factor of 25 gr CO_2 per kWh or less).
			Purchased energy by commodity (PJ)	85	77	**80**		6		
			– Aluminium	–	–	**–**		6		
			– Coal	5	5	**5**		6		
			– Copper	20	20	**16**		6		
			– Ferroalloys	23	17	**23**		6		
			– Nickel	5	5	**5**		6		
			– Oil	0.4	0.1	**0.1**		6		
			– Zinc	31	31	**31**		6		

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
			Purchased energy by region (PJ)	85	77	**80**		6		
			– Africa	33	26	**30**		6		
			– Asia	7	7	**6**		6		
			– Australia	11	11	**11**		6		
			– Europe	14	14	**14**		6		
			– North America	11	10	**11**		6		
			– South / Latin America	9	9	**9**		6		
			Renewable energy share of total energy usage (%)	13%	13%	**13%**		6		This is based upon Glencore's own renewable energy generation and from electricity purchased in low-carbon grids (those with a countrywide grid emission factor of 25 gr CO_2 per kWh or less). Prior reported percentages have been restated following an update of country grid emission factors by the IEA for 2019 and onwards.
			Renewable electricity share of total electricity usage (%)	27%	25%	**25%**		6		This is based upon Glencore's own renewable electricity generation and from electricity purchased in low-carbon grids (those with a countrywide grid emission factor of 25 gr CO_2 per kWh or less), minus renewable electricity sold, divided by total electricity consumed.
	302-3	Energy intensity	Percentage of operational spend on energy	10-15%	< 10%	**< 10%**				This range reflects the total spend on energy as a ratio to total operational spend at industrial assets.

Water and effluents

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
GRI 303	303-DMA	Disclosure on Management Approach	ESG A-Z: Water				7, 8	6	EM-MM-140a.1 (1) Total fresh water withdrawn, (2) total fresh water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	
GRI 303	303-1	Interactions with water as a shared resource	Glencore SR: Material topics (pp. 19-20), Water (pp. 36-39)				7, 8	6		
		Water stress and water risk exposure – Proportion of sites situated in water stressed areas	Glencore AR: Key performance indicators (p. 23) Sustainability (pp. 27-33) Other Water microsite on our homepage Additional information: Water stewardship', extended ESG data book 2021 (see Excel file on our homepage)	32%	32%	**33%**		6		Water stressed areas are regions of 'high' or 'extremely high' water stress or that are classified as 'arid & low water use' according to the WRI's Aqueduct Water Risk Atlas. A breakdown of our water withdrawals, discharges and consumption on a country level and river basin level can be found on our water microsite.
GRI 303	303-2	Management of water discharge-related impacts					7, 8	6		We treat water prior to discharge in compliance with regulatory approvals, permits and licenses.

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
GRI 303	303-3	Total water withdrawal	Total water withdrawal (million m³)	1,017	1,033	**999**		6	EM-MM-140a.1 (1) Total fresh water withdrawn, (2) total fresh water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	The year-on-year decrease in withdrawn water is primarily related to the sale of Mopani and maintenance activities at some sites, as well as Covid-related impacts. We restated 2020 data as one site missed to report water inflow from the aquifer that was not detected in time. Water entrained in ore is currently not included in our total water withdrawal. For further water withdrawal data following GRI and ICMM's Water Reporting: Good practice guide, 2nd Edition, broken down by quality and from areas with water stress refer also to 'Additional information: Water stewardship' in our extended ESG data book 2021 (see Excel file on our homepage).
			Surface Water (million m³)	208	195	**182**		6		
			Sea water (million m³)	147	170	**177**		6		
			Groundwater (million m³)	368	348	**320**		6		
			Rainwater (million m³)	176	205	**199**		6		
			Potable Water (million m³)	22	18	**15**		6		
			Other water from third parties (million m³)	95	96	**69**		6		
			Water imported from internal water sharing networks (million m³)	n/a	n/a	**37**				
			Water entrained in ore (million m³)	17	14	**15**		6		
GRI 303	303-4	Water discharge	Total discharged water (million m³)	696	669	**665**		6		Priority substance of potential concern for which discharges are treated primarily involve heavy metals, mineral oils and chemicals that are used for metal processing (e.g. sulfuric acid) regarding our metals and minerals operations and mineral oils regarding our oil operations. We treat water prior to discharge in compliance with regulatory approvals, permits and licenses. For further water discharge data following GRI and ICMM's Water Reporting: Good practice guide, 2nd Edition, broken down by quality and from areas with water stress refer also to 'Additional information: Water stewardship' in our extended ESG data book 2021 (see Excel file on our homepage).
			Water discharges to surface water (million m³)	469	435	**401**		6		
			Water discharges to sea/ocean (million m³)	153	172	**181**		6		
			Water discharges to groundwater (million m³)	7	5	**8**		6		
			Water discharges to offsite treatment (million m³)	12	11	**11**		6		
			Water exported to a third party (million m³)	54	47	**23**		6		
			Water exported from internal water sharing networks (million m³)	n/a	n/a	**41**				

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
GRI 303	303-5	Water used, reused and recycled	Total volume of water use (million m³)	550	584	**598**	8, 9	6,8	EM-MM-140a.1 (1) Total fresh water withdrawn, (2) total fresh water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	
			Total volume of water recycled and reused (million m³)	528	521	**486**	8, 9	6, 8		
			Percentage of water recycled/reused (%)	34%	34%	**33%**	8	6, 8		The percentage reflects the quantity of water reused and recycled compared to the quantity of total water input, water reused/recycled, and water taken from storage facilities (i.e. change in storage).
		Water consumption	Evaporation and other losses (million m³)	178	336	**284**		6		Aligned with ICMM definitions, consumption is the sum of water removed by evaporation, entrainment (in product and waste) and other losses. To maximise transparency, consumption does not include any change in storage (delta storage), which is reported as a separate value. For further water consumption data following GRI and ICMM's Water Reporting: Good practice guide, 2nd Edition, in areas with water stress refer to 'Additional information: Water stewardship' in our extended ESG data book 2021 (see Excel file on our homepage).
			Entrainment (million m³)	49	46	**47**		6		
			Total water consumption (million m³)	227	382	**331**		6		
			Change in water in storage	111	-4	**18**		6		Aligned with ICMM recommendations, the change in storage volume is reported to allow complete transparency of the overall water balance; and does not indicate an associated water-related impact.
Biodiversity										
GRI 304	304-DMA	Disclosure on Management Approach	ESG A-Z: Biodiversity Glencore SR: Land stewardship (pp. 40-44)				7, 8	7	EM-MM-160a.1 Description of environmental management policies and practices for active sites	
GRI 304	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Areas owned, leased, managed, located in, adjacent to, or that contain protected areas and areas of high biodiversity value outside protected areas (1,000 ha)	294	294	**288**	8	7	EM-MM-160a.3 Percentage of (1) proved and (2) probable reserves in or near sites with protected conservation status or endangered species habitat	SASB EM-MM-160a.3: We do not currently disclose the percentage of (1) proved, and (2) probable reserves in or near sites with protected conservation status or endangered species habitat. However, we provide information about those sites that are located in or adjacent to protected areas or areas with high biodiversity value in our ESG A-Z on our homepage.

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
GRI 304	304-2	Description of significant impacts of activities, products and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas	ESG A-Z: Biodiversity Glencore SR: Land stewardship (pp. 40-44)				7, 8	7		We do not disclose impacts on biodiversity due to resettlements as they are not considered material.
MM1	MM1	Total land owned, leased or managed for mining operations	1,000 ha	2,145	2,331	**2,112**	8	7		
		Total land disturbed and not yet rehabilitated (A: opening balance)	1,000 ha	88	92	**94**	8	7		In 2021, our Aguilar, Alumbrera, Chad, Mopani and Springlake operations were divested, with a total of 3,682ha of disturbed land not yet rehabilitated. In order to report following the land balance approach, the 3,682ha was removed from our disturbed land baseline.
		Total amount of land newly disturbed within the reporting period (B)	1,000 ha	6.8	5.1	**2.1**	8	7		
		Total amount of land newly rehabilitated within the reporting period to the agreed end use (C)	1,000 ha	2.3	3.1	**1.7**	8	7		In 2020, we redisturbed 281ha of land that we had previously rehabilitated and in 2021, we redisturbed 221ha of land we had previously rehabilitated. The redisturbed rehabilitated land is reflected in our 2019 and 2020 numbers. The land was redisturbed as areas were re-mined at deeper levels. Due to improved surveying methods, in 2020 we added 3,115ha of disturbed land and 1,361ha of rehabilitated land from our United Wambo and Oaky Creek Surface operations. In 2020, we also removed 4ha of disturbed and rehabilitated land from our Rustenburg operation.
		Total land disturbed and not yet rehabilitated (D= A+B-C; closing balance)	1,000 ha	92	94	**94**	8	7		
MM2	MM2	Number and percentage of total sites identified as requiring biodiversity management plans according to stated criteria, and the number (percentage) of those sites with plans in place	ESG A-Z: Biodiversity Glencore SR: Land stewardship (pp. 40-44)	91%	94%	**95%**	8	7	EM-MM-160a.1 Description of environmental management policies and practices for active sites	

Emissions

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
GRI 305	305-DMA	Disclosure on Management Approach	ESG A-Z: Air emissions, Climate change Glencore SR: Climate change and energy (pp. 29-35), Other: Climate Report 2021: Pathway to Net Zero				7, 8	6	EM-MM-110a.1 Gross global Scope 1 emissions, percentage covered under emissions-limiting regulation	SASB: EM-MM-110a.1 Our Scope 1 emissions exclude HFCs, PFCs, SF6 and NF3 as these greenhouse gases are not material to our business. Our GHG emissions are calculated on the basis of an operational control approach. 4% of our Scope 1 emissions reported in 2021 are covered under an emissions-limiting regulation (i.e. cap-and-trade and emissions trading scheme in Quebec and Europe, respectively).
GRI 305	305-1	Direct greenhouse gas (GHG) emissions (Scope 1)	Direct emissions (thousand tonnes CO_2e)	18,278	14,796	**14,954***		6		The increase between 2020 and 2021 Scope 1 emissions reflects an increase in some production volumes, in line with the global economic recovery from the Covid-19 pandemic, notably at Ferroalloys smelters in South Africa, which were idled during the national lockdown in 2020. 2019 and 2020 data has been restated reflecting data corrections identified during a Group-wide review of our Scope 1 data.
			Direct emissions by commodity (thousand tonnes CO_2e)	18,278	14,796	**14,954**		6		
			– Aluminium	0.03	0.01	**0.04**		6		
			– Coal	6,702	5,684	**5,068**		6		
			– Copper	1,225	970	**983**		6		
			– Ferroalloys	4,112	3,047	**4,111**		6		
			– Nickel	2,865	2,479	**2,366**		6		
			– Oil	983	228	**44**		6		
			– Zinc	2,391	2,387	**2,382**		6		
			Direct emissions by region (thousand tonnes CO_2e)	18,278	14,796	**14,954**		6		
			– Africa	5,780	3,969	**4,698**		6		
			– Asia	1,189	1,231	**1,279**		6		
			– Australia	8,567	7,864	**7,338**		6		
			– Europe	369	348	**378**		6		
			– North America	772	591	**602**		6		
			– South/Latin America	1,600	793	**659**		6		

GRI standard/ Disclosure number	Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
		Direct emissions by source (thousand tonnes CO_2e)	18,278	14,796	**14,954**		6		
		Fossil fuels	8,601	6,915	**6,638**		6		
		– Solid fossil fuels	2,285	1,919	**1,739**		6		GHG emissions from consumption of coal and coke at our operations.
		– Liquid fossil fuels	5,247	4,258	**4,215**		6		GHG emissions from consumption of diesel and other oil products at our operations.
		– Gaseous fossil fuels	1,068	738	**685**		6		GHG emissions from consumption of natural gas, refinery gas and other gas-based fossil fuels at our operations.
		Reductants	5,238	4,044	**5,011**		6		GHG emissions from consumption of carbon-based materials for the chemical reduction of metal oxides.
		Emissions from fossil fuel extraction	4,044	3,447	**2,920**		6		Coal seam emissions from the production of coal and GHG emissions from the extraction of oil. In both cases, this represents a mix of methane, CO_2 and other GHG gases.
		– Underground	2,146	1,609	**1,165**		6		Coal seam emissions from underground coal operations and GHG emissions caused by the extraction of oil. In both cases, this primarily involves methane gases.
		– Open pit and stockpiling	1,481	1,220	**1,264**		6		GHG emissions from open pit mining and from stockpiling coal prior to its sale.
		– Decommissioned mines	417	618	**492**		6		GHG emissions from coal mines which have been closed.
		Other direct GHG emissions	395	390	**384**		6		Other GHG emissions, not covered in the above, directly caused by process activities.
	Biogenic CO_2 emissions	Biogenic CO_2 emissions (thousand tonnes CO_2e)	6	5	**4**		6		

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
GRI 305	305-2	Scope 2 Location based	Indirect emissions (thousand tonnes CO_2)	11,141	9,424	**10,770***		6		This applies the grid emission factor to all our purchased electricity, regardless of specific renewable electricity contracts, as per the updated guidelines from the GHG protocol for Scope 2 emissions. The increase between 2020 and 2021 Scope 2 emissions reflects an increase in some production volumes, in line with the global economic recovery from the Covid-19 pandemic, notably at the grid-powered Ferroalloys smelters in South Africa, which were idled during the national lockdown in 2020. 2019 and 2020 data has been restated primarily reflecting an update of the applicable grid emission factors.
			Indirect emissions by commodity (thousand tonnes CO_2)	11,141	9,424	**10,770**		6		
			– Aluminium	–	–	**–**		6		
			– Coal	1,176	1,164	**1,146**		6		
			– Copper	1,181	1,266	**1,036**		6		
			– Ferroalloys	5,953	4,284	**5,961**		6		
			– Nickel	55	39	**53**		6		
			– Oil	113.8	33	**22**		6		
			– Zinc	2,662	2,638	**2,552**		6		
			Indirect emissions by region (thousand tonnes CO_2)	11,141	9,424	**10,770**		6		
			– Africa	6,547	4,794	**6,313**		6		
			– Asia	1,169	1,247	**1,130**		6		
			– Australia	1,816	1,836	**1,784**		6		
			– Europe	841	823	**826**		6		
			– North America	63	43	**41**		6		
			– South/Latin America	704	682	**676**		6		

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
	305-2	Scope 2 Market based	Indirect emissions (thousand tonnes CO_2)	11,697	9,198	**11,128**		6		Where applicable and available, this applies the supplier-specific emission factor regarding the purchased electricity contract, especially at operations with large volumes of purchased electricity in Australia, Chile, and Europe. Otherwise, it applies the country's residual emission factor (for EU countries) or the grid emission factor. This calculation rule has been implemented in line with the updated guidelines from the GHG protocol for Scope 2 emissions.
	305-1, 305-2	Total greenhouse gas emissions (Scope 1 + Scope 2 Location based)	Total emissions (thousand tonnes CO_2e (Scope 1); thousand tonnes CO_2 (Scope 2)	29,418	24,220	**25,724**		6		The increase between 2020 and 2021 Scope 1 and 2 emissions reflects an increase in some production volumes, in line with the global economic recovery from the Covid-19 pandemic, notably at the grid-powered Ferroalloys smelters in South Africa, which were idled during the national lockdown in 2020.
GRI 305	305-3	Other relevant indirect (Scope 3) greenhouse gas emissions – total	Total emissions (thousand tonnes CO_2e)	343,626	271,063	**253,908**		6		This Scope 3 total includes all categories of our Scope 3 emissions which are relevant and material to our operations. The most material category is the use of sold products, relating to the use of produced coal and oil. Scope 3 emissions refer to data from industrial operations, as defined in further detail on pp. 231-233 of the AR.
		Scope 3 – Purchased goods & services	Total emissions (thousand tonnes CO_2e)	787	864	**854**		6		This covers the estimated Scope 3 emissions from third party copper, lead, nickel and zinc feeds into our combined mine and smelting/processing facilities. 2020 data has been restated reflecting a corrected production number.

GRI standard/ Disclosure number	Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
	Scope 3 – Fuel- and energy-related activities	Total emissions (thousand tonnes CO_2e)	968	808	**940***		6		A major source of fuel- and energy-related Scope 3 emissions results from transmission and distribution losses (T&D losses) of purchased electricity. The related CO_2 emissions are calculated by applying country-specific emission factors for T&D losses per kWh as presented by the IEA by multiplying these losses by the country-specific quantity of electricity purchased. Previous calculations used country-specific T&D losses as presented by the World Bank, whose last available data represented 2014 values. T&D losses presented by the IEA are updated more frequently, with the latest available data representing 2019 values. The 2019 and 2020 data has been restated accordingly.
	Scope 3 – Upstream transportation & distribution	Total emissions (thousand tonnes CO_2e)	1,280	1,466	**907**		6		Marine fuel consumed for time-chartered shipping, both upstream and downstream transportation, applying GHG protocol emission factors for the specific fuel types. This total was 50% allocated to upstream and 50% to downstream transportation.
	Scope 3 – Downstream transportation & distribution	Total emissions (thousand tonnes CO_2e)	1,280	1,466	**907**		6		

GRI standard/ Disclosure number	Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
	Scope 3 – Processing of sold products	Total emissions (thousand tonnes CO_2e)	11,256	11,017	**11,166**		6		Applying GHG Protocol's 'average data' method to further processing by our clients of copper, nickel, zinc, lead concentrates and metal, and ferrochrome that we produce. To estimate the Scope 3 emissions, our produced volumes are multiplied by the relevant embodied carbon coefficient. For concentrates, embodied carbon coefficients of primary (virgin) product are applied, representing the emissions of cradle-to-gate processing. For metals, embodied carbon coefficients of secondary (recycled) product are applied as a proxy for processing the metals into the product's dominant use, like copper wire in case of copper metal. The ICE database (2011) from University of Bath provides these coefficients for copper, zinc, lead, and stainless steel. As ferrochrome and nickel are predominantly used in the production of stainless steel, the embodied carbon coefficient of stainless steel is allocated to these two products by applying the average content percentages of these two products in stainless steel. The reported values incur some level of overlap with Glencore's Scope 1 and 2 emissions.
	Scope 3 – Use of sold products – operational control	Total emissions (thousand tonnes CO_2e)	325,705	253,134	**236,701***				Scope 3 emissions from the use of sold products relate to the use of saleable fossil fuels (coal and oil), produced by industrial operations under Glencore operational control, on a 100% basis. The volumes of saleable products are taken from Glencore's publicly available Production Report. Regarding coal, the emissions value includes emissions from use of both thermal and metallurgical coal produced. Regarding oil, the emissions value relates to the gross production basis of our Glencore operated oil production entity, excluding emissions related to oil refinery activities.

GRI standard/ Disclosure number	Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
	Scope 3 – Investments	Total emissions (thousand tonnes CO_2e)	2,238	2,173	**2,328**		6		This represents Glencore's share of Scope 1 and 2 emissions from the following investments which are considered to be most material: Antamina (Copper), Century (Aluminium), Cerrejón (Coal), Collahuasi (Copper) and Viterra (formerly Glencore Agriculture). Where available, the Scope 1 and 2 total values as reported most recently by these companies were taken as input. In case no such data was available, the Scope 1 and 2 emissions from a comparable Glencore asset (e.g. within same country and same business) were extrapolated based upon production totals. 2020 data has been restated as the actual Scope 1 and 2 GHG emissions from two investments were published (previous calculation was based on 2019 data).
	Scope 3 – Other downstream: Coal seam emissions send to third-party operated power plant	Total emissions (thousand tonnes CO_2e)	112	136	**104**		6		This value concerns GHG emissions from sending coal seam emissions (e.g. methane) from our coal operations to third-party operated power plants. 2019 and 2020 data has been restated reflecting corrected data collection and reporting of one operation.
	Other Scope 3 categories						6		Other categories of Scope 3, as structured by the Greenhouse Gas Protocol, are not relevant or are immaterial to Glencore. This applies to: – Capital goods – Business travel – Employee commuting – Upstream leased assets – End of life treatment of sold products – Downstream leased assets – Franchises – Other upstream emissions.

GRI standard/ Disclosure number	Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
GRI 305	Scope 3 – Use of sold products – attributable basis	Total emissions (thousand tonnes CO$_2$e)	347,206	264,247	**258,005**		6		Scope 3 emissions from the use of sold products on an attributable basis relate to the use of saleable fossil fuels (coal and oil), produced by industrial operations, according to Glencore's attributable share of production. Differing from Scope 3 emissions from the 'use of sold products – operational control', this alternative metric includes attributable production from joint ventures where we do not have operational control, most notably Cerrejón. The volumes of saleable products are taken from Glencore's publicly available Production Report. Regarding coal, the emissions value includes emissions from use of both thermal and metallurgical coal produced. Regarding oil, the emissions value relates to the net production basis of Glencore's industrial assets where we have operational control and joint ventures where we do not have operational control, excluding emissions related to oil refinery activities. This metric is a key component of Glencore's projection of reductions in Scope 3 emissions by 2035. As such, this metric should be regarded as an alternative metric to Scope 3 emissions from the 'use of sold products – operational control' and should not be aggregated into our reported total Scope 3 emissions.

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
GRI 305	305-4	Carbon Scope 1 and Scope 2 location based intensity – Metals mining	t GHG/t Cu-equiv	3.60	3.50	**3.60**		6		We show the carbon intensity of our operations as Scope 1 and 2 location based emissions compared to production from those operations. We have shown metals mining, coal mining, metals smelting and oil refining separately. Emissions data is collected on a site-by-site, rather than activity-by-activity basis. Integrated sites with mining and smelting capability have therefore been allocated to the most appropriate category. Metals mining includes integrated mine/smelter operations: Mount Isa, Kazzinc, INO, Murrin Murrin, Koniambo, Mopani (disposed 2021). Metals smelting includes integrated mine/smelter operations: Ferroalloys. 'Cu-equiv' are the copper equivalents converted on the basis of 2019 (baseline year) average prices. Refer to p. 67 of the AR for additional information.
		Carbon Scope 1 and Scope 2 location based intensity – Metals smelting	t GHG/t Cu-equiv	7.60	6.00	**7.40**				
		Carbon Scope 1 and Scope 2 location based intensity – Coal mining	t GHG/t Cu-equiv	4.70	5.30	**5.00**				
		Carbon Scope 1 and Scope 2 location based intensity – Oil refining and distribution	t GHG/million litres	177.20	27.60	**3.70**				
GRI 305	305-6	Emissions of ozone-depleting substances (ODS)								Ozone depleting substances are not material to our operations.
GRI 305	305-7	NOx, SOx, and other significant air emissions	Total particulates: emissions – total mass (tonnes)	10,605	8,124	**8,999**		6	EM-MM-120a.1 Air emissions of the following pollutants: (1) CO; (2) NOx (excluding N2O); (3) SOx; (4) particulate matter (PM10); (5) mercury (Hg); (6) lead (Pb); and (7) volatile organic compounds (VOCs)	Includes air emissions from our industrial activities and mobile equipment. Excludes emissions from time-chartered vessels, but includes those from vessels that we own. SASB EM-MM-120a.1: We do not currently disclose the emissions of carbon monoxide (CO), mercury (Hg), lead (Pb) and volatile organic compounds (VOCs). Our reported particulate matter (PM) includes particle sizes that are larger than 10 micrometers (PM10) as it includes total suspended matter (TSP) with a maximum particle size of about 30 micrometers. All of our operations have abatement systems in place in order to meet the locally applicable threshold values.
			NOx (oxides of nitrogen): emissions – total mass (tonnes)	60,865	50,353	**51,366**		6		
			SOx (oxides of sulphur): emissions – total mass (tonnes)	455,421	360,571	**349,995**		6		

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
Waste										
GRI 306	306-DMA	Disclosure on Management Approach	ESG A-Z: Waste Glencore SR: Contributing to the circular economy (pp. 10-11); Catastrophic hazard management (pp. 21-24), Glencore AR: Stories of the year: Circular Copper (p. 18); Risk management (pp. 81-82) Other: https://www.glencore.com/ sustainability/esg-a-z/Tailings				7, 8	6	EM-MM-150a.10 Description of waste and hazardous materials management policies and procedures for active and inactive operations; EM-MM-540a.1 Tailings storage facilities inventory table; EM-MM-540a.2 Summary of tailings management systems and governance structure used to monitor and maintain stability of tailings storage facilities; EM-MM-540a.3 Approach to development of Emergency Preparedness and Response Plans (EPRPs) for tailings storage facilities	
	306-1	Waste generation and significant waste-related impacts					7, 8	6		
	306-2	Management of significant waste-related impacts					7, 8	6		
GRI 306	306-3	Total weight of waste by type and disposal method	Total mineral waste (million tonnes)	2,461	2,041	**1,954**		6, 8		Data refers to mineral waste generated. EM-MM-150a.7: The share of hazardous non-mineral waste is not collected separately as it is considered to be immaterial compared to the quantities of mineral waste.
			Hazardous mineral waste (million tonnes)	177	165	**162**		6, 8	EM-MM-150a.7 Total weight of hazardous waste generated	
			Non-hazardous mineral waste (million tonnes)	2,284	1,876	**1,793**		6, 8		
			% mineral waste recycled	1%	1%	**1%**		6, 8		
			Total non-mineral waste (thousand tonnes)	882	385	**354**			EM-MM-150a.4 Total weight of non-mineral waste generated	Data refers to non-mineral waste disposed of. Non-mineral waste includes waste oils, spent cell lining, office, canteen and camp waste, scrap steel, tyres and construction waste.
			% non-mineral waste recycled	30%	31%	**34%**		6, 8		

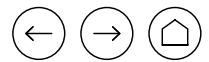| GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
MM3	MM3	Total amounts of overburden, rock, tailings and sludges and their associated risks	Total amounts of overburden, rock, tailings and sludges (million tonnes)	2,461	2,041	**1,954**		6	EM-MM-150a.5 Total weight of tailings produced; EM-MM-150a.6 Total weight of waste rock generated	Data refers to total mineral waste generated. SASB EM-MM-150a.5+6: In 2021, this included 143 million tons of tailings of which 8.3 million tons were recycled (6%) and 1,772 million tons of waste rock and overburden.
GRI 306	306-3	Total number and volume of significant spills and environmental incidents	Number of significant spills and environmental incidents	1	2	**0**		6	EM-MM-140a.2 Number of incidents of non-compliance associated with water quality permits, standards, and regulations; EM-MM-150a.9 Number of significant incidents associated with hazardous materials and waste management	Significant spills are those reported under categories 3 (moderate), 4 (major) and 5 (catastrophic), according to Glencore's classification scheme (refer also to glossary of Glencore SR). No category 4 (major) or category 5 (catastrophic) incidents occurred in 2021. EM-MM-150a.9: No significant incidents associated with hazardous materials and waste management occurred in 2021.
			Volume of significant spills (m³)	20	54	**0**		6		

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
Environmental Compliance										
GRI 307	307-DMA	Disclosure on Management Approach	ESG A-Z: Environment, Environmental incidents Glencore SR: Sustainability governance (pp. 12-14) Water (pp. 36-39)				7, 8, 9	1		
GRI 307	307-1	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	Monetary value of environmental fines (US$ thousand)	1,274	284	**4,767**	7	6	EM-MM-140a.2 Number of incidents of non-compliance associated with water quality permits, standards, and regulations	The fines related to various incidents of non-compliances, such as breaches of general environmental conditions, exceedances of air emission limits, discharges into water sources, etc. Many related to historic incidents. The fines in 2019 have been restated as one fine was related to planning rights and not environmental issues. SASB EM-MM-140a.2: This includes 28 fines regarding water related incidents totalling approximately US$4m (refer also to Water section in this report for further information).
			Number of non-monetary sanctions (environmental prosecutions, regulatory actions/orders, regulatory non-compliance, and other sustainability-related penalties)	293	213	**193**	7	6		This indicator presents the number of formally notified breaches of environmental regulations which includes regulatory actions/orders, environmental prosecutions and environmental fines.
Several	Several	Total environmental protection expenditures and investments by type	Water-related CAPEX (US$ million)	113	111	**88**	8, 9	6, 10		Data only covers water-related expenses.
			Water-related OPEX (US$ million)	165	165	**144**	8, 9	6, 10		Data only covers water-related expenses.
Supplier Environmental Assessment										
GRI 308	308-DMA	Disclosure on Management Approach	ESG A-Z: Supply chain due diligence Glencore SR: Stakeholder engagement (pp. 15-17), Responsible sourcing and supply (pp. 61-64) Other: Additional information: 'Our People' in our extended ESG data book 2021 (see Excel file on our homepage)				7, 8	6, 8		
GRI 308	308-1	Percentage of new suppliers that were screened using environmental criteria	Percentage of new suppliers screened using environmental criteria (%)	53%	56%	**67%**	8	6		

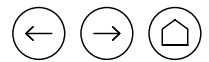| GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
SOCIAL										
Employment										
GRI 401	401-DMA	Disclosure on Management Approach	ESG A-Z: Our people Glencore SR: Human rights (pp. 45-52), Our people (pp. 65-68) Glencore AR: Our people (pp. 34-37) Other: 'Additional information: Our People', extended ESG data book 2021 (see Excel file on our homepage)				3, 4, 5, 6			
GRI 401	401-1	Total number and rates of new employee hires and employee turnover by age group, gender, and region	Redundancies							For further breakdowns of turnover and new employee hire data refer also to 'Additional information: Our People' in our extended ESG data book 2021 (see Excel file on our homepage).
			Total redundancies	9,120	7,179	**8,000**				
			Redundancies (%)	11%	8%	**9%**				
			Total turnover by region (%)							
			– Africa	6%	6%	**2%**				
			– Asia	8%	8%	**8%**				
			– Australia	12%	11%	**12%**				
			– Europe	5%	5%	**7%**				
			– North America	14%	15%	**15%**				
			– South/Latin America	9%	8%	**20%**				
			New employees:							
			Total number new employees	11,591	5,909	**9,646**				
			New employees (%)	10%	7%	**11%**				
Labour/Management Relations										
GRI 402	402-DMA	Disclosure on Management Approach	ESG A-Z: Our people Glencore SR: Our people (pp. 65-68) Glencore AR: Our people (pp. 34-37)				3, 4, 5, 6			
GRI 402	402-1	Minimum notice period(s) regarding operational changes, including whether it is specified in collective agreements						3		Minimum notice periods vary across the Group, ranging from 1 week to 6 months.

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
MM4	MM4	Number of strikes and lock-outs exceeding one week's duration	Number of strikes exceeding one week's duration	4	1	**2**		3	EM-MM-310a.2 Number and duration of strikes and lockouts	One strike each in New Caledonia (Koniambo) and Peru (Andaychagua, Volcan).
			Number of lock-outs exceeding one week's duration	2	0	**2**		3		Two lock-outs in Italy (Portovesme).
Occupational Health & Safety										
GRI 403	403-DMA	Disclosure on Management Approach	ESG A-Z: Safety, Health, HIV/AIDS Glencore SR: Health and safety (pp. 25-28)					5		Health and safety data covers all employees and contractors of those industrial assets where we have operational control. Refer also to: https://www.glencore.com/en/who-we-are/our-code https://www.glencore.com/who-we-are/policies/health-safety-policy
GRI 403	403-1	Occupational health and safety management system	ESG A-Z: Safety, Health, HIV/AIDS Glencore SR: Health and safety (pp. 25-28)					5		We require the industrial sites under our operational control to meet our expectations on health and safety processes for employees and contractors, which have been mapped to leading industry practices and international standards, such as ISO 45001. However, certification to such standards is not mandatory and is at the discretion of the relevant commodity department and industrial site. For further information refer to: https://www.glencore.com/en/who-we-are/our-code https://www.glencore.com/who-we-are/policies/health-safety-policy https://www.glencore.com/sustainability/esg-a-z/safety https://www.glencore.com/sustainability/esg-a-z/health
GRI 403	403-2	Hazard identification, risk assessment, and incident investigation	ESG A-Z: Safety, Health, Glencore SR: Health and safety (pp. 25-28)					5		For further information refer to: https://www.glencore.com/en/who-we-are/our-code https://www.glencore.com/who-we-are/policies/health-safety-policy

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
GRI 403	403-3	Occupational health services	ESG A-Z: Safety, Health, Glencore SR: Health and safety (pp. 25-28)					5		Our industrial sites have dedicated occupational health functions, with appropriate skills to respond to local and site needs. Our employees and contractors have access to these services. We assess, monitor and control health risks to prevent occupational diseases among our workforce. We require our industrial assets to have formal plans, processes and records to allow routine monitoring of occupational health, including spot checks. Our focus is on early intervention. If one of our people is injured at work or suffers an occupational disease, requiring rehabilitation, we support the individual to return to work as soon as possible. At some industrial sites, we operate clinics that are also accessible for the local community. https://www.glencore.com/who-we-are/policies/health-safety-policy
GRI 403	403-4	Worker participation, consultation, and communication on occupational health and safety	Percentage of sites with formal joint management-worker health and safety committees	n/a	78%	**79%**		5		The majority of our industrial sites have formal health and safety committees in place with representatives of the workforce and the management. These committees meet and visit the sites regularly and any findings are actioned to prevent any health and safety incidents and ensure continuous improvement.
GRI 403	403-5	Worker training on occupational health and safety						5	EM-MM-320a.1 (1) MSHA all-incidence rate, (2) fatality rate, (3) near miss frequency rate (NMFR), and (4) average hours of health, safety, and emergency response training for (a) full-time employees, and (b) contract employees	Our employees and contractors receive pre-shift training and safety inductions, and regular workplace-specific training, especially in the event of operational changes. A crucial element of these trainings are our fatal hazard protocols and our life-saving behaviours. EM-MM-320a.1: Refer also to GRI 403-9.

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
GRI 403	403-6	Promotion of worker health	ESG A-Z: Safety, Health, Glencore SR: Health and safety (pp. 25-28)					5		Our occupational health management strategy addresses the health risks facing our workforce, their families, and the communities inside and outside our gates. We follow a variety of onsite programmes to manage occupational diseases and exposure to health hazards; we extend many of these health programmes to our host communities, to combat regional health problems and promote healthy lifestyles. Our work on health is overseen by our health working group, consisting of with internal subject matter experts.
GRI 403	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	ESG A-Z: Safety, Health, Glencore SR: Health and safety (pp. 25-28)					5		https://www.glencore.com/ sustainability/esg-a-z/safety
GRI 403	403-8	Workers covered by an occupational health and safety management system: Percentage of employees and contractors covered by:	– an occupational health and safety management system	n/a	67%	**62%**		5		These metrics cover all industrial sites. All employees and contractors of a site, which has implemented an occupational health and safety management system are covered by this system. Refer also to section 403-1.
			– by an occupational health and safety management system that has been internally audited	n/a	50%	**50%**		5		
			– by an occupational health and safety management system that has been audited and certified by an external party	n/a	31%	**30%**		5		

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
GRI 403	403-9	Work-related injuries	ESG A-Z: Safety, Health, Glencore SR: Health and safety (pp. 25-28) Other: 'Additional information: Health and Safety', extended ESG data book 2021 (see Excel file on our homepage)						EM-MM-320a.1 (1) MSHA all-incidence rate, (2) fatality rate, (3) near miss frequency rate (NMFR), and (4) average hours of health, safety, and emergency response training for (a) full-time employees, and (b) contract employees	For further breakdowns of health and safety data refer also to 'Additional information: Health and Safety' in our extended ESG data book 2021 (see Excel file on our homepage).
		Total number of fatalities	Number of workforce fatalities (employees + contractors)	17	8	**4***		5		The total number of occupational fatalities includes all work-related fatalities affecting employees and contractors working at industrial sites under Glencore's operational control. The 2019 fatalities include one fatality that relates to an occupational disease. EM-MM-320a.1: Refer also to GRI 403-5.
		Number of fatalities of employees	Number of employee fatalities	11	6	**4**		5		
		Number of fatalities of contractors	Number of contractor fatalities	6	2	**0**		5		
		Total number of fatalities – by region (employees + contractors)	Africa	11	3	**3**		5		
			Australia	0	0	**0**		5		
			North America	0	0	**0**		5		
			South/Latin America	2	2	**1**		5		
			Rest of the world	4	3	**0**		5		
		Number of fatalities – by region (employees)	Africa	7	3	**3**		5		
			Australia	0	0	**0**		5		
			North America	0	0	**0**		5		
			South/Latin America	1	1	**1**		5		
			Rest of the world	3	2	**0**		5		
		Number of fatalities – by region (contractors)	Africa	4	0	**0**		5		
			Australia	0	0	**0**		5		
			North America	0	0	**0**		5		
			South/Latin America	1	1	**0**		5		
			Rest of the world	1	1	**0**		5		
		Fatality frequency rate (FIFR)	Employees + contractors	0.046	0.027	**0.014**		5		Fatality frequency rate is the number of fatalities per million hours worked.
			Employees	0.062	0.039	**0.027**		5		
			Contractors	0.031	0.014	**0.000**		5		

GRI standard/ Disclosure number	Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
	Total recordable injury frequency rate (TRIFR)	Employees + contractors	2.9	2.7	**2.4***		5		The total recordable injury frequency rate (TRIFR) is the sum of fatalities, lost time injuries (LTIs), restricted work injuries (RWIs), and medical treatment injuries (MTIs), per million hours worked. The metric represents all injuries that require medical treatment beyond first aid.
		Employees	3.0	2.8	**2.5***		5		
		Contractors	2.7	2.5	**2.2***		5		
	Lost time injury frequency rate (LTIFR)	Employees + contractors	0.99	0.94	**0.83***		5		Lost time injury frequency rate (LTIFR) is the total number of lost time injuries (LTIs) recorded per million hours worked. LTIs are recorded when an employee or contractor is unable to work following an incident. We record lost days as beginning on the first rostered day that the worker is absent after the day of the injury. The day of the injury is not included. LTIs do not include restricted work injuries (RWIs) and fatalities.
		Employees	1.17	1.14	**1.00***		5		
		Contractors	0.83	0.72	**0.64***		5		
	Near Miss Frequency Rate (NMFR)	Employees + contractors	35	64	**84**		5		Near Miss Frequency Rate (NMFR) is the total number of near miss incidents recorded per million hours worked.
	High-consequence injuries	Employees + contractors	n/a	n/a	**49**		5		Work-related injury that results in an injury from which the worker cannot, does not, or is not expected to recover fully to pre-injury health status within 180 days.
		Employees	n/a	n/a	**42**		5		
		Contractors	n/a	n/a	**7**		5		
	High-consequence injury frequency rate	Employees + contractors	n/a	n/a	**0.17**		5		High-consequence injury frequency rate is the total number of high-consequence injuries recorded per million hours worked.
		Employees	n/a	n/a	**0.28**		5		
		Contractors	n/a	n/a	**0.05**		5		
	Hours worked	Employees + contractors	369	300	**285**		5		Hours worked expressed in million hours.
		Employees	177	156	**149**		5		
		Contractors	191	145	**136**		5		
	Lost day rate	%	0.1%	0.1%	**0.1%**		5		Lost day rate is expressed by comparing the total lost days to the total number of hours scheduled to be worked by the workforce.
	Absentee rate	%	4%	8%	**5%**		5		The absentee rate is expressed by comparing the total absent time to the total time scheduled to be worked by the workforce.

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
GRI 403	403-10	Work-related ill health	ESG A-Z: Health, Glencore SR: Health and safety (pp. 25-28)					5		
		Fatalities due to occupational diseases	Employees + contractors	1	0	**0**		5		The fatality in 2019 is also included in the fatalities reported in section 403-9.
			Employees	0	0	**0**		5		
			Contractors	1	0	**0**		5		
		Occupational disease frequency rate (ODR)	Employees + contractors	0.29	0.41	**0.38**		5		Occupational disease frequency rate is the number of occupational diseases per million hours worked. The majority of occupational diseases are associated with the musculoskeletal system/ connective tissue and ear and mastoid process. Further information can be found on pages 25-28, section 'Health and safety' of this Report.
			Employees	0.40	0.57	**0.67**		5		
			Contractors	0.19	0.25	**0.07**		5		

Training and Education

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
GRI 404	404-DMA	Disclosure on Management Approach	ESG A-Z: Our people Glencore SR: Our people (pp. 65-68)					6		
GRI 404	404-1	Average hours of training per year per employee	Average training hours per worker (employees + contractors)	48	43	**66**		2		We do not collect this information by gender as we treat male and female employees equally.
		Percentage of training hours per employee category	Contractors (%)	37%	39%	**29%**		2		
			Management (%)	1%	1%	**3%**		2		
			Operational, production, maintenance (%)	51%	50%	**54%**		2		
			Supervisors, administration, technical (%)	11%	10%	**14%**		2		

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
Diversity and Equal Opportunity										
GRI 405	405-DMA	Disclosure on Management Approach	ESG A-Z: Our people Glencore SR: Our people (pp. 65-68) Glencore AR: Our people (pp. 34-37) Other: 'Additional information: Our People', extended ESG data book 2021 (see Excel file on our homepage)					6		
GRI 405	405-1	Composition of governance bodies and breakdown of employees per category according to gender, age, minority group membership, and other indicators of diversity	Minority group membership				6	3		Glencore has operations in areas where minority group membership data cannot be collected for privacy reasons. We therefore cannot provide an accurate number.
			Number of female employees	13,848	13,875	**13,625**	6	3		For further breakdowns refer also to 'Additional information: Our People' in our extended ESG data book 2021 (see Excel file on our homepage).
			Percentage of female employees (%)	16%	16%	**17%**	6	3		
			Percentage of female managers (%)	18%	18%	**20%**	6	3		
			Number of female Board directors	2	2	**3**	6	3		Appointment of a third female non-executive director in February 2021.
GRI 405	405-2	Ratio of basic salary of men to women by employee category	ESG A-Z: Our people Glencore SR: Our people (pp. 65-68)				6	3		Our basic salaries are not differentiated by gender (1:1).
Non-discrimination										
GRI 406	406-DMA	Disclosure on Management Approach	ESG A-Z: Our people Glencore SR: Our people (pp. 65-68) Glencore AR: Ethics and compliance (pp. 43-47) Other: Code of Conduct				6			
GRI 406	406-1	Total number of incidents of discrimination and actions taken	ESG A-Z: Our people Glencore SR: Our people (pp. 65-68) Glencore AR: Ethics and compliance (pp. 43-47) Other: Code of Conduct	1	0	**0**	6	3		Each reported case of discrimination is carefully analysed and where confirmed, appropriate disciplinary action is taken.

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
Freedom of Association and Collective Bargaining										
GRI 407	407-DMA	Disclosure on Management Approach	ESG A-Z: Our people Glencore SR: Our people (pp. 65-68) Glencore AR: Ethics and compliance (pp. 43-47) Other: Code of Conduct				3			
GRI 407	407-1	Operations and suppliers identified in which workers' rights to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights	Number of assets	0	0	**0**	3	3		
Child Labour										
GRI 408	408-DMA	Disclosure on Management Approach	ESG A-Z: Our people, Human rights Glencore SR: Human rights (pp. 45-52), Responsible sourcing and supply (pp. 61-64), Our people (pp. 65-68) Glencore AR: Ethics and compliance (pp. 43-47) Other: Code of Conduct				5			

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
GRI 408	408-1	Operations and suppliers identified as having significant risk for incidents of child labour, and measures taken to contribute to the effective abolition of child labour	ESG A-Z: Our people, Human rights Glencore SR: Human rights (pp. 45-52), Responsible sourcing and supply (pp. 61-64), Our people (pp. 65-68) Glencore AR: Ethics and compliance (pp. 43-47) Other: Code of Conduct	0	0	**0**	5	3		We protect and uphold fundamental human rights around the Group, with fairness, dignity, and respect, and uphold the International Labour Organization Declaration on Fundamental Principles and Rights at Work.
Forced or Compulsory Labour										
GRI 409	409-DMA	Disclosure on Management Approach	ESG A-Z: Our people, Human rights Glencore SR: Human rights (pp. 45-52), Responsible sourcing and supply (pp. 61-64), Our people (pp. 65-68) Glencore AR: Ethics and compliance (pp. 43-47) Other: Code of Conduct				4			
GRI 409	409-1	Operations and suppliers identified as having significant risk for incidents of forced or compulsory labour, and measures to contribute to the elimination of all forms of forced or compulsory labour	Number of assets	0	0	**0**	4	3		

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
Security Practices										
GRI 410	410-DMA	Disclosure on Management Approach	ESG A-Z: Human rights Glencore SR: Human rights (pp. 45-52), Glencore AR: Ethics and compliance (pp. 43-47) Other: Code of Conduct				1, 2			
GRI 410	410-1	Percentage of security personnel trained in the organisation's policies or procedures that are relevant to operations	ESG A-Z: Human rights Glencore SR: Human rights (pp. 45-52), Glencore AR: Ethics and compliance (pp. 43-47) Other: Code of Conduct	91%	89%	**93%**	1, 2	1, 3		Employed security personnel only.
Rights of Indigenous Peoples										
GRI 411	411-DMA	Disclosure on Management Approach	ESG A-Z: Human rights Glencore SR: Human rights (pp. 45-52), Responsible citizenship (pp. 53-60) Glencore AR: Risk management (p. 83), Other: Code of Conduct				1, 2		EM-MM-210a.2 Percentage of (1) proved, and (2) probable reserves in or near indigenous land EM-MM-210a.3 Discussion of engagement processes and due diligence practices with respect to human rights, indigenous rights, and operation in areas of conflict	
GRI 411	411-1	Total number of incidents of violations involving rights of Indigenous Peoples and actions taken		0	0	**0**	1, 2	3		No cases reported (refer also to MM6).
MM5	MM5	Number of sites located on or near Indigenous Peoples' land		42	41	**40**	1, 2	3		SASB EM-MM-210a.2: We do not currently disclose the percentage of (1) proved, and (2) probable reserves in or near Indigenous lands.
		Number of sites with operations in or adjacent to an Indigenous community that have an agreement with that community		23	25	**26**	1, 2	3		

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
Human Rights Assessment										
GRI 103	103-DMA	Disclosure on Management Approach	ESG A-Z: Our people, Human rights Glencore SR: Human rights (pp. 45-52), Responsible sourcing and supply (pp. 61-64), Our people (pp. 65-68) Glencore AR: Ethics and compliance (pp. 43-47) Other: Code of Conduct				1, 2		EM-MM-210a.1 Percentage of (1) proved, and (2) probable EM-MM-210a.3 Discussion of engagement processes and due diligence practices with respect to human rights, indigenous rights, and operation in areas of conflict reserves in or near areas of conflict EM-MM-210b.1 Discussion of process to manage risks and opportunities associated with community rights and interests	SASB EM-MM-210a.1: This information is not disclosed.
GRI 412	412-DMA	Disclosure on Management Approach	ESG A-Z: Our people, Human rights Glencore SR: Human rights (pp. 45-52), Responsible sourcing and supply (pp. 61-64), Our people (pp. 65-68) Glencore AR: Ethics and compliance (pp. 43-47) Other: Code of Conduct				1, 2			
GRI 412	412-1	Total number and percentage of operations that have been subject to human rights reviews or impact assessments	ESG A-Z: Our people, Human rights Glencore SR: Human rights (pp. 45-52), Responsible sourcing and supply (pp. 61-64), Our people (pp. 65-68) Glencore AR: Ethics and compliance (pp. 43-47) Other: Code of Conduct				1, 2	1, 3	EM-MM-210a.3 Discussion of engagement processes and due diligence practices with respect to human rights, indigenous rights, and operation in areas of conflict	Our Group Human Rights policy requires our offices and industrial assets to conduct risk assessments for conflict and security concerns. If these risks are identified, our assets must align their practices with the Voluntary Principles.
GRI 412	412-2	Total hours of employee training on human rights policies or procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained	Total hours of employee training	63,667	22,549	**16,083**	1, 2	1, 3		Employed security personnel only.
			Percentage of employees trained (%)	91%	89%	**93%**	1, 2	1, 3		Employed security personnel only.

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
GRI 412	412-3	Total number and percentage of significant investment agreements that include human rights clauses or that underwent human rights screening	ESG A-Z: Our people, Human rights Glencore SR: Human rights (pp. 45-52), Responsible sourcing and supply (pp. 61-64), Our people (pp. 65-68) Glencore AR: Ethics and compliance (pp. 43-47) Other: Code of Conduct				1, 2	1, 3		We undertake due diligence of our major investments; human rights risks are considered as part of this process. We seek to ensure that all significant investment agreements include a requirement to comply, or demonstrate comparable practices, with the Glencore Code of Conduct, including its provisions on respect of human rights. Figures are tracked for internal purposes, but not externally reported.
SOCIETY										
Local Communities										
GRI 413	413-DMA	Disclosure on Management Approach	ESG A-Z: Stakeholder engagement, Communities Glencore SR: Human rights (pp. 45-52), Responsible citizenship (pp. 53-60)				1, 2		EM-MM-210b.1 Discussion of process to manage risks and opportunities associated with community rights and interests	To help us consistently measure and report on our contributions, we have developed a socio-economic contribution scorecard. Going forward, we plan to integrate the scorecard into our existing community and stakeholder engagement systems.
GRI 413	413-1	Percentage of operations with implemented local community engagement, impact assessments, and/or development programmes	ESG A-Z: Stakeholder engagement, Communities Glencore SR: Human rights (pp. 45-52), Responsible citizenship (pp. 53-60)				1, 2	3		We do not report the total percentage. Our industrial sites are required to identify and assess issues, opportunities and risks throughout the lifecycle of their activities, and to have community engagement and social investment strategies in place, as applicable.
GRI 413	413-2	Operations with significant actual or potential negative impacts on local communities	ESG A-Z: Stakeholder engagement, Communities Glencore SR: Human rights (pp. 45-52), Responsible citizenship (pp. 53-60)				1, 2	3		

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
MM6	MM6	Number and description of significant disputes relating to land use, customary rights of local communities and indigenous peoples	ESG A-Z: Stakeholder engagement, Communities Glencore SR: Human rights (pp. 45-52), Responsible citizenship (pp. 53-60)	11	7	**1**	1, 2	3	EM-MM-210a.3 Discussion of engagement processes and due diligence practices with respect to human rights, indigenous rights, and operation in areas of conflict	There was one dispute relating to land use/ownership in 2021. The dispute relates to a Nickel asset in Canada (Raglan) where a community member built his camp on Glencore property. The site and the community member found a mutual agreement which satisfied all involved parties.
MM7	MM7	The extent to which grievance mechanisms were used to resolve disputes relating to land use and customary rights of local communities and indigenous peoples, and the outcomes	ESG A-Z: Stakeholder engagement, Communities Glencore SR: Human rights (pp. 45-52), Responsible citizenship (pp. 53-60)				1, 2	3		We require each asset where we have operational control to have a complaint registration process. This should include a formal grievance and conflict resolution process for community members and others to make complaints and raise concerns. The process should include transparent procedures for registering, evaluating and responding appropriately to the concerns raised. Complaints regarding access to land are mainly related to resettlement planning activities, and have been addressed through ongoing consultations around these processes.
			Total number of community complaints	1,149	1,272	**1,159**	1, 2	3		
MM8	MM8	Number (and percentage) of company operating sites where artisanal and small scale mining takes place on, or adjacent to, the site; the associated risks and the actions taken to manage and mitigate these risks	Number of sites	7	7	**6**	1, 2			ESG A-Z: Artisanal and small-scale mining (ASM) Glencore SR: Human rights (pp. 45-52), Responsible citizenship (pp. 53-60)
			Sites (%)	6%	6%	**6%**	1, 2			ESG A-Z: Artisanal and small-scale mining (ASM) Glencore SR: Human rights (pp. 45-52), Responsible citizenship (pp. 53-60)
MM9	MM9	Sites where resettlements took place, the number of households resettled in each, and how their livelihoods where affected in the process	Number of sites with resettlements activities	3	2	**3**	1, 2			Resettlements occurred at Goedgevonden, iMpunzi, and Zonnebloem.
			Number of resettled households	8	18	**9**	1, 2			
MM10	MM10	Number and percentage of operations with closure plans	ESG A-Z: Closure Glencore SR: Land stewardship (pp. 40-44)				1, 2			As required by our Group Environmental Policy, all our industrial sites must have closure plans in place.

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
Supplier Social Assessment										
GRI 414	414-DMA	Disclosure on Management Approach	ESG A-Z: Supply chain due diligence Glencore SR: Stakeholder engagement (pp. 15-17), Human rights (pp. 45-52), Responsible sourcing and supply (pp. 61-64)				1, 2, 6, 10	3, 5, 8	EM-MM-210a.3 Discussion of engagement processes and due diligence practices with respect to human rights, indigenous rights, and operation in areas of conflict reserves in or near areas of conflict	
GRI 414	414-1	Percentage of new suppliers that were screened using social criteria	Percentage of new suppliers screened (%)	54%	53%	**66%**	1, 2, 6, 10	3		
Public Policy										
GRI 415	415-1	Disclosure on Management Approach	ESG A-Z: Ethics Glencore AR: Ethics and compliance (pp. 43-47) Other: Global Anti-Corruption Policy				10			As part of our business principles Glencore does not permit any of its funds or resources to be used to contribute to any political campaign, political party, political candidate, or any of their affiliated organisations.
PRODUCT RESPONSIBILITY										
Customer Health & Safety										
GRI 416	416-DMA	Disclosure on Management Approach	Glencore SR: Responsible sourcing and supply (pp. 61-64)				7, 8, 9	8		
MM11	MM11	Programmes and progress relating to materials stewardship	Glencore SR: Responsible sourcing and supply (pp. 61-64)				7, 8, 9	8		Progress is tracked internally, but not reported externally. Case studies have been provided in the Glencore Sustainability Report giving examples of programmes.
GRI 416	416-1	Percentage of significant product and service categories for which health and safety impacts are assessed for improvement	Glencore SR: Responsible sourcing and supply (pp. 61-64)				7, 8, 9	8		All our products are thoroughly assessed as part of the REACH registration and notification process, as well as schemes in other applicable jurisdictions.

GRI standard/ Disclosure number		Description	Response/Cross reference/ Unit of measurement	2019	2020	2021	UNGC principles	ICMM principles	SASB	Comments
Marketing and Labelling										
GRI 417	417-1	Requirements for product and service information and labelling	Glencore SR: Responsible sourcing and supply (pp. 61-64)				7	8		Our sustainability framework requires our commodity products to conform with the regulations and good practice guidelines pertaining to the regions where we operate. This also applies to the information requirements of our products. In Europe, we have prepared and submitted extensive dossiers for all substances within our products in line with REACH registration requirements, containing information on properties, environmental impacts and guidance for safe use. This information is actively sent to all our customers by means of safety data sheets. For products not subject to REACH requirements, we have documented information on properties, environmental impacts and guidance for safe use, and make this available to our customers as safety data sheets.
Socioeconomic Compliance										
GRI 419	419-DMA	Disclosure on Management Approach	ESG A-Z: Ethics Glencore AR: Ethics and compliance (pp. 43-47) Other: Global Anti-Corruption Policy							
GRI 419	419-1	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and/ or regulations in the social and economic area	ESG A-Z: Ethics Glencore AR: Ethics and compliance (pp. 43-47) Other: Global Anti-Corruption Policy							Glencore AR: Financial Review, Significant items (p. 50).

* Independently assured by Deloitte LLP for 2021. Refer to the Basis of Reporting on our homepage for how our assured key performance indicators are defined.

Additional information: Greenhouse Gas Emissions[1]

This section contains additional information on Glencore's greenhouse gas emission reporting and performance. The information is complementary to Glencore's climate change disclosures as part of the 2021 Annual Report, 2021 Sustainability Report, Climate Report 2021: Pathway to Net Zero and the GRI section of the Glencore Environmental, Social and Governance data 2021.

Additional greenhouse gas emission information: basis of reporting

Glencore's greenhouse gas emission reporting is based upon the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised edition), applying the operational control boundary.

Greenhouse gas emission factors – Scope 1

Region	Type	Greenhouse Gas	Value	Unit	Effective Date	Description
Global	Natural Gas	Carbon Dioxide	56,100	kg GHG/TJ	01/01/2014	GHG Protocol Cross-Sector Tools – Stationary Combustion – (April 2014)
Global	Natural Gas	Methane	5.00000	kg GHG/TJ	01/01/2014	
Global	Natural Gas	Nitrous Oxide	0.10000	kg GHG/TJ	01/01/2014	
Global	Residual fuel oil	Carbon Dioxide	3,127	kg GHG/t (metric)	01/01/2014	
Global	Residual fuel oil	Methane	0.40400	kg GHG/t (metric)	01/01/2014	
Global	Residual fuel oil	Nitrous Oxide	0.02424	kg GHG/t (metric)	01/01/2014	
Global	Anthracite	Carbon Dioxide	2,625	kg GHG/t (metric)	01/01/2014	
Global	Anthracite	Methane	0.26700	kg GHG/t (metric)	01/01/2014	
Global	Anthracite	Nitrous Oxide	0.04005	kg GHG/t (metric)	01/01/2014	
Global	Coke oven coke	Carbon Dioxide	3,017	kg GHG/t (metric)	01/01/2014	
Global	Coke oven coke	Methane	0.28200	kg GHG/t (metric)	01/01/2014	
Global	Coke oven coke	Nitrous Oxide	0.04230	kg GHG/t (metric)	01/01/2014	
Global	Other kerosene	Carbon Dioxide	2.51938	kg GHG/L	01/01/2014	
Global	Other kerosene	Methane	0.00035	kg GHG/L	01/01/2014	
Global	Other kerosene	Nitrous Oxide	0.00002	kg GHG/L	01/01/2014	
Global	Gas/Diesel oil	Carbon Dioxide	2.67649	kg GHG/L	01/01/2014	
Global	Gas/Diesel oil	Methane	0.00036	kg GHG/L	01/01/2014	
Global	Gas/Diesel oil	Nitrous Oxide	0.00002	kg GHG/L	01/01/2014	
Global	Naphtha	Carbon Dioxide	2.51162	kg GHG/L	01/01/2014	
Global	Naphtha	Methane	0.00034	kg GHG/L	01/01/2014	
Global	Naphtha	Nitrous Oxide	0.00002	kg GHG/L	01/01/2014	
Global	Liquefied Petroleum Gases	Carbon Dioxide	1.61170	kg GHG/L	01/01/2014	
Global	Liquefied Petroleum Gases	Methane	0.00013	kg GHG/L	01/01/2014	
Global	Liquefied Petroleum Gases	Nitrous Oxide	0.00000	kg GHG/L	01/01/2014	

1.   Refer also to the Basis of Reporting on our homepage for how our assured key performance indicators are defined.

Greenhouse gas emission factors – Scope 1

Region	Type	Greenhouse Gas	Value	Unit	Effective Date	Description
Global	Gasoline/Petrol	Carbon Dioxide	8.59873	kg GHG/gal (US)	01/01/2014	GHG Protocol Cross-Sector Tools – Transport Fuel Use – (April 2014)
Global	On-Road Diesel Fuel	Carbon Dioxide	10.13100	kg GHG/gal (US)	01/01/2014	
Global	Heavy fuel oil	Carbon Dioxide	11.12500	kg GHG/gal (US)	01/01/2014	
Global	Methane combusted	Carbon Dioxide	2.81016	t GHG (metric)/t (metric)	01/01/2006	Australian National Greenhouse Accounts (NGA) factors 2006 – Table 2.3: (Coal mine waste gas that is captured for combustion)
Global	Limestone flux reductant	CO_2e	0.44000	kg GHG/kg	01/01/2006	GHG Protocol sector specific – Iron and steel 2008

Greenhouse gas emission factors – Scope 2, purchased electricity grid emission factors

Region	Type	Greenhouse Gas	Value	Unit	Effective Date	Description
Canada – Nova Scotia	Purchased electricity	Carbon Dioxide	0.72	kg GHG/kWh	01/01/2019	National Intensity Report 1990-2019, Canada's 2021 UNFCCC Submission, Part 3, Table A13-4, CO_2 intensity (g CO_2/kWh) for 2019. Link: https://unfccc.int/documents/271493, 12 April 2021
Canada – British Columbia	Purchased electricity	Carbon Dioxide	0.0123	kg GHG/kWh	01/01/2019	
Canada – Quebec	Purchased electricity	Carbon Dioxide	0.0013	kg GHG/kWh	01/01/2019	
Canada – Ontario	Purchased electricity	Carbon Dioxide	0.029	kg GHG/kWh	01/01/2019	
Canada – New Brunswick	Purchased electricity	Carbon Dioxide	0.29	kg GHG/kWh	01/01/2019	
US Egrid – ERCT	Purchased electricity	Carbon Dioxide	936	lb GHG/MWh	01/01/2019	United States Environmental Protection Agency (EPA). 2021. 'eGRID2019 Unit, Generator, Plant, State, Balancing Authority Area, eGRID Subregion, NERC Region, U.S., and Grid Gross Loss (%) Data Files', February 23, 2021, US EPA, Clean Air Markets Division, Washington, DC 20460. Available from EPA's eGRID web site: https://www.epa.gov/energy/egrid
US Egrid – CAMX	Purchased electricity	Carbon Dioxide	498.686	lb GHG/MWh	01/01/2019	
US Egrid – NEWE	Purchased electricity	Carbon Dioxide	527.564	lb GHG/MWh	01/01/2019	
US Egrid – NWPP	Purchased electricity	Carbon Dioxide	643.363	lb GHG/MWh	01/01/2019	
Australia – New South Wales	Purchased electricity	Carbon Dioxide	0.81	kg GHG/kWh	01/01/2021	Australia National Greenhouse Account Factors (NGER), update August 2021, Table 5 Indirect (scope 2) emission factors for consumption of purchased electricity from the grid, page 19, https://www.industry.gov.au/sites/default/files/2020-10/national-greenhouse-accounts-factors-2020.pdf
Australia – Queensland	Purchased electricity	Carbon Dioxide	0.81	kg GHG/kWh	01/01/2021	
Australia – Western Australia	Purchased electricity	Carbon Dioxide	0.68	kg GHG/kWh	01/01/2021	
Australia – Northern Territory	Purchased electricity	Carbon Dioxide	0.62	kg GHG/kWh	01/01/2021	

Greenhouse gas emission factors – Scope 2, purchased electricity grid emission factors

Region	Type	Greenhouse Gas	Value	Unit	Effective Date	Description
Argentina	Purchased electricity	Carbon Dioxide		g GHG/kWh	01/01/2019	IEA Emission Factors, 2021 Edition, tab CO_2KWH ELE, product 'Total'. Please note: this 2021 document contains the grid emission factors valid as per 2019. External dissemination of any IEA data requires specific permission, which is why the relevant emission factors are not disclosed in this document.
Bolivia	Purchased electricity	Carbon Dioxide		g GHG/kWh	01/01/2019	
Chile	Purchased electricity	Carbon Dioxide		g GHG/kWh	01/01/2019	
Colombia	Purchased electricity	Carbon Dioxide		g GHG/kWh	01/01/2019	
Democratic Republic of the Congo	Purchased electricity	Carbon Dioxide		g GHG/kWh	01/01/2019	
Germany	Purchased electricity	Carbon Dioxide		g GHG/kWh	01/01/2019	
Italy	Purchased electricity	Carbon Dioxide		g GHG/kWh	01/01/2019	
Kazakhstan	Purchased electricity	Carbon Dioxide		g GHG/kWh	01/01/2019	
Norway	Purchased electricity	Carbon Dioxide		g GHG/kWh	01/01/2019	
Peru	Purchased electricity	Carbon Dioxide		g GHG/kWh	01/01/2019	
South Africa	Purchased electricity	Carbon Dioxide		g GHG/kWh	01/01/2019	
Spain	Purchased electricity	Carbon Dioxide		g GHG/kWh	01/01/2019	
United Kingdom	Purchased electricity	Carbon Dioxide		g GHG/kWh	01/01/2019	
Zambia	Purchased electricity	Carbon Dioxide		g GHG/kWh	01/01/2019	

Global warming potential (GWP) values relative to CO_2

Region	Chemical formula	Greenhouse Gas	Global warming potential	Unit	Effective Date	Description
Global	CO_2	Carbon dioxide	1	g CO_2e/g CO_2	All years	IPCC Fifth Assessment Report, 2014 (AR5), GWP values for 100-year time horizon
Global	CH_4	Methane	28	g CO_2e/g CH_4	All years	IPCC Fifth Assessment Report, 2014 (AR5), GWP values for 100-year time horizon
Global	N_2O	Nitrous oxide	265	g CO_2e/g N_2O	All years	IPCC Fifth Assessment Report, 2014 (AR5), GWP values for 100-year time horizon

Additional greenhouse gas emission information: participation in emission trading schemes in 2021

Emission trading scheme name	Carbon allowances allocated	Carbon allowances purchased	Verified emissions (t CO_2e)	Description
European Union ETS	474,168	11,462	297,169	Zinc operations in Germany, Italy and Spain
Quebec cap and trade system	288,485	14,779	312,844	Copper, Zinc and Nickel operations in Quebec, Canada

Additional greenhouse gas emission information: break down of coal production by mine type

Mine type	2019	2020	2021	Description
Underground	13%	15%	**14%**	Percentage of coal production from underground operations
Surface	87%	85%	**86%**	Percentage of coal production from surface operations

Glossary

A

Accountable Executive
The GISTM defines an Accountable Executive as "one or more executive(s) who is/are directly answerable to the CEO on matters related to this Standard, communicates with the Board of Directors, and who is accountable for the safety of tailings facilities and for minimising the social and environmental consequences of a potential tailings facility failure. The Accountable Executive(s) may delegate responsibilities but not accountability."

ASM
Artisanal and small-scale mining.

C

Carbon Scope 1 and Scope 2 location-based intensity
The carbon Scope 1 and 2 location-based intensity is calculated as a ratio of Scope 1 and 2 location-based emissions of Glencore operated industrial assets owned at the end of the reporting year, divided by their copper equivalent production, regarding our metals and coal operations or by their production volumes regarding our oil operations. Further synonyms of these metrics are 'carbon emissions intensity' and 'greenhouse gas emissions intensity'.

Care and maintenance
A phase in the life cycle of an industrial asset where mining, processing and/or operations temporarily ceased and are placed into care and maintenance, ready to be restarted again, as circumstances may allow.

CCS
Carbon capture and storage.

Closure plan
A formal document detailing a costed conceptual outline of how Glencore will close an operation, taking into account the options available to deal with prevailing social and environmental issues. We set aside funds specifically for site closure, including land rehabilitation.

CO_2e
Carbon dioxide equivalent (CO_2e) is the universal unit of measurement for the global warming potential (GWP) of greenhouse gases (GHG), where one unit of CO_2e is the GWP for one unit of carbon dioxide. This unit allows us to discuss the equivalence of different GHGs in terms of their GWP. The GWPs used in this report are one for CO_2, 28 for methane and 265 for nitrous oxide, as per IPCC's 5th Assessment.

Commodity department
Glencore's business is divided into a number of commodity departments, including copper, nickel, ferroalloys and zinc. See glencore.com/what-we-do for a full list

Concentrate
A natural commodity consisting of extracted and processed mineral ores; the first step towards producing refined minerals and metals.

Copper equivalent
We calculate a product-specific production value by dividing the average price of a specific product in a baseline year with the average price of copper in the same baseline year.

Critical control
A control that is crucial to preventing or mitigating the consequences of an event. The absence or failure of a critical control would significantly increase the risk connected to the relevant hazard, regardless of the existence of other controls. Controls include mitigation and management actions, devices and technical systems.

CSIRO
The Commonwealth Scientific and Industrial Research Organisation (CSIRO) is an Australian federal government agency responsible for scientific research. Its chief role is to improve the economic and social performance of industry for the benefit of the Commonwealth.

CTSCo
Glencore's wholly-owned subsidiary, the Carbon Transport and Storage Company Pty Ltd (CTSCo), is developing a CCUS project.

Glossary continued

D

Direct energy
Primary energy used by our industrial sites including energy generated by combustion in our boilers, furnaces, and vehicles. Sources include coal, coke, diesel, gasoline, biomass, biodiesel, fuel oil, jet fuel, kerosene, LPG, naphtha, natural gas, propane, and electricity generated from renewable sources and coal seam emissions or recovered on-site. See 'Indirect energy'.

DPM
Diesel particulate matter.

E

EITI
The Extractive Industries Transparency Initiative (EITI) aims to strengthen governance by improving transparency and accountability in the extractives sector (oil, gas and mining). EITI promotes revenue transparency by monitoring and reconciling payments from the extractive businesses and government revenues at country level, as well transparency in commodity trading.

ESG
Environment, social and governance.

F

Ferroalloys
Various iron alloys that have a high proportion of one or more other elements, e.g. manganese, chrome or silicon.

G

GHG
Greenhouse gas.

Greenhouse Gas Protocol
Standards and guidance for corporate accounting and reporting on GHG emissions, which help governments and business leaders to understand, quantify, and manage GHG emissions (e.g. CO_2). The Greenhouse Gas Protocol separates GHG emissions into different scopes depending on source.

GRI
The Global Reporting Initiative (GRI) is an international independent standards organisation that develops and disseminates voluntary sustainability reporting frameworks; there is a specific supplement for the mining and metals industry.

Grievance process
A formal grievance process/mechanism for local community members or other stakeholders to use to register any concerns about real or perceived actions by nearby operations, with the objective of resolving problems before they escalate.

H

Hazardous
Dangerous, as defined by national legislation.

HELE
High-efficiency, low-emission.

Hours worked
Hours worked means the total number of hours worked by employees or contractors carrying out work-related activities during the recording period. Hours worked includes overtime and training, but excludes annual leave, maternity leave, sick leave, public holidays and other absences.

HPRIs
High-potential risk incidents (HPRIs) could potentially result in a catastrophic or major outcome. See 'Incident classification'.

HSEC&HR
Health, safety, environment and communities and human rights.

I

ICMM
The International Council on Mining & Metals (ICMM) is an industry trade body dedicated to establishing and promoting leading sustainability practices.

ISCV
The ICMM's Initiative for Safer Cleaner Vehicles is building an evolving industry pathway towards the safest approach for controlling potential vehicle interactions.

Incident classification
We classify the severity of all sustainability-related incidents against a five-point scale, 1: negligible, 2: minor, 3: moderate, 4: major, and 5: catastrophic.

IFC
The International Finance Corporation (IFC) is part of the World Bank Group; it finances private sector ventures and projects in developing countries and provides these with advice and guidelines.

ILO
The International Labour Organization (ILO) is a United Nations agency for the promotion of social justice and internationally recognised human and labour rights.

ILO Declaration
In 1988, the ILO adopted the Declaration on Fundamental Principles and Rights at Work, with the core categories of collective bargaining, discrimination, forced labour and child labour.

Glossary continued

Indigenous Peoples
People in countries whose social, cultural and economic conditions distinguish them from other sections of the national community, and whose status is regulated wholly or partially by their own customs or traditions, or by special laws or regulations; or people in countries who are regarded as Indigenous on account of their descent from the populations which inhabited the country, or a geographical region to which the country belongs at the time of conquest or colonisation, or the establishment of present state boundaries and who, irrespective of their legal status, may retain some or all of their own social, economic, cultural and political institutions.

Indirect energy
Secondary energy used by our industrial sites, but supplied by third parties, often as electricity. This includes electricity, steam and heating/cooling. See 'Direct energy'.

Independently managed joint venture
Joint venture which operates independently from its shareholders. This means that a board of directors not controlled by Glencore, with an independent executive management and corporate functions, including finance and legal, is established to operate the JV. The shareholders' involvement in the JV is typically limited to participation in the board and shareholder governance bodies.

Industrial activities
Glencore term covering activities of the Group's industrial assets focused on exploring, extracting, processing, refining and delivering commodities, which generally provide a source of physical commodities for the Group's marketing activities.
See 'Marketing activities'.

IPCC
The United Nations Intergovernmental Panel on Climate Change (IPCC) assesses scientific, technical and socio-economic information on the risk of human-induced climate change. The United Nations Environment Programme and the World Meteorological Organization established the IPCC.

L

LBMA
The London Bullion Market Association (LBMA) is an international trade association, representing the London market for gold and silver bullion, which promotes refining standards, trading documentation and the development of good trading practices.

LTIs
An LTI is an occupational injury that is recorded when an employee or contractor is unable to work following an incident. We record lost days as beginning on the first rostered day that the worker is absent after the day of the injury. The day of the injury is not included. LTIs do not include restricted work injuries (RWIs) and fatalities.

LTIFR
The lost time injury frequency rate (LTIFR) is the total number of LTIs recorded per million hours worked.

M

MACC
A marginal abatement cost curve (MACC) is an estimate of the volume and costs of opportunities to reduce emissions in a given year.

Marketing activities
Glencore term relating to the marketing and trading of commodities, which focus on sourcing a diversified range of physical commodities from third-party suppliers and from industrial assets in which Glencore has full or part ownership interests. These commodities are sold, often with value-added services such as freight, insurance, financing and/or storage, to a broad range of customers and industrial commodity.
See 'industrial activities'.

N

NDCs
Nationally Determined Contributions (NDCs) are the efforts by each country to reduce national emissions and adapt to the impacts of climate change.

O

OECD
The Organisation for Economic Co-operation and Development (OECD) is an international organisation that provides a forum in which governments can work together to share experiences and seek solutions to tackle economic, social, environmental and governance challenges.

Occupational disease
Any chronic ailment or illness that occurs as a result of work or occupational activity; these are typically identified as being more prevalent in a given body of workers than in the general population, or in other worker populations. An occupational disease is different from an occupational injury.

P

The Paris Agreement
An agreement within the United Nations Framework Convention on Climate Change, dealing with GHG emissions mitigation, adaptation, and finance, signed in 2016.

Petajoule (Pj)
A measure of energy equivalent to a thousand trillion joules, or 10^{15} joules, usually used to express energy consumption by cities or major industries.

Glossary continued

Policy

A document issued by Glencore with a Group-wide scope, setting out the high-level approach and requirements on a topic. Group-wide scope means the approach and requirements apply to all regions and business activities.

Procedure

A document issued by the Group which establishes requirements and defines the specific steps that must be taken to implement those requirements, generally as required by Group policies and standards.

S

SafeWork

SafeWork is Glencore's approach to eliminating fatalities. It's about identifying and managing the hazards in every workplace. SafeWork is built on a set of minimum expectations and mandatory protocols, standards, behaviours and safety tools. Well-led, consistent application of SafeWork will drive operating discipline and prevent fatal accidents at all our industrial assets.

Safeguard Mechanism

The Safeguard Mechanism provides a framework for Australia's largest emitters to measure, report and manage their emissions.

Scope 1 emissions

Greenhouse gas (GHG) emissions stemming from our industrial sites (i.e. direct emissions), including reductants, emissions from combustion in our boilers, furnaces and vehicles/vessels and coal seam emissions.

Scope 2 – location-based emissions

Scope 2 emissions are the GHG emissions associated with our industrial sites' consumed indirect energy (i.e. purchased electricity, steam and heating/cooling). This approach applies grid emission factors to all purchased electricity, steam and heating, regardless of contractual purchase arrangements.

Scope 2 – market-based emissions

This approach applies GHG emissions from contractual arrangements; we apply supplier-specific emission factors when relevant and available, but where they are not, the country's residual or grid emission factor is applied. We measure our Scope 2 – market-based emissions in CO_2.

Scope 3 emissions

Indirect greenhouse gas emissions (not included in Scope 2) that occur in our value chain, including both upstream and downstream emissions.

Stakeholders

All individuals and groups that have an interest in, or can either impact or be impacted by, Glencore's business which may include employees, shareholders, debt providers, communities, suppliers, customers, governments, and civil society.

Standard

A document issued by Glencore which sets out the key requirements established on a particular topic. It contains detailed requirements that support the principles set out in the Code of Conduct or a policy. A standard does not set out the step-by-step process of how the specific requirements should be met.

T

Tailings

The residue of an industrial process, especially residue that contains mineral ore.

TSF

Tailings are stored in purpose-built tailings storage facilities (TSFs).

TRIFR

The total recordable injury frequency rate (TRIFR) is the sum of fatalities, LTIs, restricted work injuries (RWIs), and medical treatment injuries (MTIs), per million hours worked. The metric represents all injuries that require medical treatment beyond first aid.

U

United Nations Global Compact (UNGC)

The UNGC is a voluntary initiative based on CEO commitments to implement universal sustainability principles and to take steps to support the UN Sustainable Development Goals.

United Nations Guiding Principles

The United Nations Guiding Principles on Business and Human Rights are a set of guidelines for states and companies to prevent, address, and remedy, human rights abuses committed in business operations.

Universal Declaration of Human Rights

The Universal Declaration of Human Rights is a common standard for all peoples and all nations, that sets out fundamental human rights to be universally protected.

V

Voluntary Principles

The Voluntary Principles on Security and Human Rights (Voluntary Principles) Initiative is a multi-stakeholder initiative involving governments, companies, and NGOs, which promotes a set of principles for oil, gas and mining companies, to guide them in providing security for their operations in a manner that respects human rights.

Glossary continued

W

Water discharge

Total water discharge is defined as water that is released back to the water environment (surface water, groundwater or seawater), or to a third party. This includes water that is shared across our industrial sites, which can partially result in double-counting. The quantity of water shared across our industrial sites can be found in Glencore's overall water balance as specified in our annual Sustainability Report.

This category excludes diverted water that is actively managed (e.g. physically pumped, actively treated, or has material consumptive losses) by the industrial site, but does not enter the operational water system used to supply the operational water demand (i.e. is not used by the industrial site in an operational task or activity).

Our total water discharge does not include water that is entrained in waste (e.g. tailings) or products. This is reported separately. See 'Water output'.

Water input

Total amount of water withdrawal plus water entrained in ore that is processed. See 'Water withdrawal'.

Water output

Total amount of water discharged plus water entrained in waste material, final product and by-products, and water lost to evaporation and other losses. See 'Water discharge'.

Water quality

The Water Accounting Framework for the Minerals Industry of the Minerals Council of Australia assesses the quality of water into three categories:

- **Category 1:** water that is of a high quality and requires minimal and inexpensive treatment (for example disinfection and pond settlement of solids) to raise the quality to appropriate drinking water standards.
- **Category 2:** water that is of a medium quality with individual constituents encompassing a wide range of values. It requires a moderate level of treatment such as disinfection, neutralisation, removal of solids and chemicals, to meet appropriate drinking water standards.
- **Category 3:** water that is of a low quality with individual constituents encompassing high values of total dissolved solids, elevated levels of dissolved metals, or extreme levels of pH (high or low). It requires significant treatment to remove dissolved solids and metals, neutralise and disinfect to meet appropriate drinking water standards.

Water withdrawal

This category includes water that is withdrawn from the environment (surface water, groundwater, seawater or precipitation), or provided by third parties (this covers supplied potable water and water of lower quality, e.g. treated wastewater that can be used for production purposes). It also includes water that is shared across our industrial sites, which can partially result in double-counting. The quantity of water shared across our industrial sites can be found in Glencore's overall water balance as specified in our annual Sustainability Report.

This category excludes diverted water, which is actively managed (e.g. physically pumped, actively treated, or has material consumptive losses) by the industrial site, but does not enter the operational water system used to supply the operational water demand (i.e. is not used by the industrial site in an operational task or activity).

Our total water withdrawal does not include water that is entrained in ore and raw material. This is reported separately. See 'Water input'.

Workforce

References to our workforce include both employees and contractors.

Assurance statement

Independent assurance report to Glencore plc on selected information in the 2021 Sustainability Report

An overview of the scope of our assurance work

We have been engaged by Glencore plc (Glencore or the Company) to perform a limited assurance engagement on the following selected sustainability information (Subject Matter) reported in the Glencore 2021 Sustainability Report, and the document Environmental, Social and Governance (ESG) Data Book for the year ended 31 December 2021. Each of these are available on Glencore's website glencore.com/publications.

Selected Subject Matter for assurance

Glencore's disclosures in the 2021 Sustainability Report regarding subject matters 1 to 5 of the International Council of Mining and Metals (ICMM) Sustainable Development Framework, including:

- the alignment of its policies to the ten ICMM Sustainable Development Principles and Position Statements (ICMM Subject Matter 1);
- the approach that it has adopted to identify and prioritise its material sustainable development risks and opportunities, described on page 18 of the Sustainability Report 2021 (ICMM Subject Matter 2);
- the existence and status of implementation of systems and approaches used to manage and report its material sustainable development risks and opportunities (ICMM Subject Matter 3);
- the Company's reported performance during the given reporting period for selected key performance indicators presented in Table 1 (ICMM Subject Matter 4); and
- its self-declaration of preparing the Report in accordance with the Global Reporting Initiative (GRI) Standards at a core level, as stated in the Sustainability Report 2021 and its associated ESG Data Book and GRI Index (ICMM Subject Matter 5).

Reporting Criteria

The Subject Matter has been assessed against the criteria provided in the ICMM Sustainable Development Framework Assurance Procedure and the definitions and approaches in the Glencore Corporate Practice (GCP) Database Detailed Indicator Definitions Document 2021, English V1 dated 18 December 2020, the Basis of Reporting document (including definitions and measurement methodology / basis of reporting for the above indicators in the Glencore Sustainability Report 2021) that is publicly available and readily accessible on the Glencore group website.

Table 1: ICMM Subject Matter 4

Material risks and opportunities	Report Page[1]	Key performance indicators	Assured figure
Catastrophic hazard management	18	Total number of major (Category 4) and catastrophic (Category 5) spills	0
Workplace health and safety	23	Total number of Fatalities (employee and contractor)	4
		Total Recordable Injury Frequency Rate (employee and contractor) (injuries per million working hours)	2.4
		Total Lost Time Injury Frequency Rate (employee and contractor) (injuries per million working hours)	0.83
Climate change and energy	27	Total direct and indirect energy consumption (PJ)	178
		Total Scope 1 GHG emissions (million tonnes of CO_2e)	15.0
		Total Scope 2 GHG emissions – location-based (million tonnes of CO_2)	10.8
		Total Scope 3 GHG emissions from use of sold products (fossil fuels, million tonnes of CO_2e)	237
		Total Scope 3 GHG emissions – losses from transmission and distribution of electricity (million tonnes of CO_2e)[2]	0.9
Water	35	Total water withdrawal (million m³)	999
		Total water discharge (million m³)[2]	665
Responsible citizenship	52	Total amount of Payments made to Governments (million USD)	7,632

1. Page references are provided to the Sustainability Report 2021.
2. KPIs will be reported in the associated ESG Data Book and GRI Index.

Assurance statement continued

Our assurance conclusion

Based on our procedures described in this report, nothing has come to our attention that causes us to believe that the selected Subject Matter, stated above and on the indicated pages of the Sustainability Report 2021 and Databook and GRI References 2021, for the year ended 31 December 2021, have not been prepared, in all material respects, in accordance with the Reporting Criteria.

Respective responsibilities of Directors and independent assurance provider

The Directors are responsible for the preparation of the sustainability information and statements contained within Glencore's Sustainability Report. They are responsible for determining Glencore's sustainability objectives and for establishing and maintaining appropriate performance management and internal control systems from which the reported information is derived.

Our responsibility is to express a conclusion on the selected subject matter based on our procedures. We conducted our engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised) Assurance Engagements other than Audits or Reviews of Historical Financial Information issued by the International Auditing and Assurance Standards Board. This standard requires that we comply with the independence and ethical requirements and to plan and perform our assurance engagement to obtain sufficient appropriate evidence on which to base our limited assurance conclusion. We performed the engagement in accordance with Deloitte's independence policies, which cover all of the requirements of the IESBA Code of Ethics and in some areas are more restrictive. The firm applies the International Standard on Quality Control 1 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

The evidence gathering procedures for a limited assurance engagement are more limited than for a reasonable assurance engagement which is akin to a financial audit, and consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Work performed

Our limited assurance procedures included, primarily:

- Making enquiries of management and senior executives to obtain an understanding of the overall internal control environment, risk management, materiality assessment and stakeholder engagement processes relevant to the identification, management and reporting of Glencore's material sustainable development issues, and associated selected key performance indicators.

- Evaluation of the design of controls and functionality of the Group sustainability information management and reporting database ("GCP database") at a corporate level.

- Analytical Reviews and trend analysis of reported data per commodity department;

- Conducting remote asset reviews at a sample of assets, selected on a judgemental basis on materiality of contribution to reported group KPI data, geographic coverage (Europe, Australia, North America, Africa and South America) and commodity coverage (Coal, Copper, Ferroalloys, Nickel, Oil and Zinc). This work was performed to:

  – Corroborate consistency in understanding and application of Glencore Reporting Criteria; and

  – Identify systemic challenges to data measurement, collection, reporting and control processes, or issues pervasive to region, department and / or group, for the selected performance indicators. We believe that our evidence obtained is sufficient and appropriate to provide a basis for our limited assurance conclusion.

We believe that our evidence obtained is sufficient and appropriate to provide a basis for our limited assurance conclusion.

Inherent limitations

Inherent limitations exist in all assurance engagements due to the selective enquiry of the information being examined. Therefore fraud, error or non-compliance may occur and not be detected. Additionally non-financial information, such as that included in Glencore's Sustainability Report 2021, and glencore.com/sustainability/esg-a-z is subject to more inherent limitations than financial information, given the nature and methods used for determining, calculating, and sampling or estimating such information.

Use of Report

This report is made solely to the Directors of Glencore. Our work has been undertaken so that we might state to the Directors of Glencore those matters we have agreed to state to them in this report and for no other purpose. Without assuming or accepting any responsibility or liability in respect of this report to any party other than Glencore and the Directors of Glencore, we acknowledge that the Directors of Glencore may choose to make this report publicly available for others wishing to have access to it, which does not and will not affect or extend for any purpose or on any basis our responsibilities. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than Glencore and the Directors of Glencore as a body, for our work, for this report, or for the conclusions we have formed. Our work has been undertaken so that we might state to the Company those matters we are required to state to them in this report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than Glencore for our work, for this report, or for the conclusions we have formed

While we acknowledge that this report will be published on the Glencore website, the maintenance and integrity of that website is the responsibility of the Directors of Glencore. The work that we carried out does not involve consideration of the maintenance and integrity of that website and, accordingly, we accept no responsibility for any changes that may have occurred to this report and Glencore's Reports since they were initially presented on the website.

Deloitte LLP
London, United Kingdom

21 April 2022

Important notice

Important notice concerning this report including forward looking statements

This document contains statements that are, or may be deemed to be, "forward looking statements" which are prospective in nature. These forward looking statements may be identified by the use of forward looking terminology, or the negative thereof such as "outlook", "plans", "expects" or "does not expect", "is expected", "continues", "assumes", "is subject to", "budget", "scheduled", "estimates", "aims", "forecasts", "risks", "intends", "positioned", "predicts", "anticipates" or "does not anticipate", or "believes", or variations of such words or comparable terminology and phrases or statements that certain actions, events or results "may", "could", "should", "shall", "would", "might" or "will" be taken, occur or be achieved. Forward-looking statements are not based on historical facts, but rather on current predictions, expectations, beliefs, opinions, plans, objectives, goals, intentions and projections about future events, results of operations, prospects, financial condition and discussions of strategy.

By their nature, forward-looking statements involve known and unknown risks and uncertainties, many of which are beyond Glencore's control. Forward looking statements are not guarantees of future performance and may and often do differ materially from actual results. Important factors that could cause these uncertainties include, but are not limited to, those disclosed in the Risk Management section of this report.

For example, our future revenues from our assets, projects or mines will be based, in part, on the market price of the commodity products produced, which may vary significantly from current levels. These may materially affect the timing and feasibility of particular developments. Other factors include (without limitation) the ability to produce and transport products profitably, demand for our products, changes to the assumptions regarding the recoverable value of our tangible and intangible assets, the effect of foreign currency exchange rates on market prices and operating costs, and actions by governmental authorities, such as changes in taxation or regulation, and political uncertainty.

Neither Glencore nor any of its associates or directors, officers or advisers, provides any representation, assurance or guarantee that the occurrence of the events expressed or implied in any forward- looking statements in this document will actually occur. You are cautioned not to place undue reliance on these forward-looking statements which only speak as of the date of this document.

Except as required by applicable regulations or by law, Glencore is not under any obligation and Glencore and its affiliates expressly disclaim any intention, obligation or undertaking, to update or revise any forward looking statements, whether as a result of new information, future events or otherwise. This document shall not, under any circumstances, create any implication that there has been no change in the business or affairs of Glencore since the date of this document or that the information contained herein is correct as at any time subsequent to its date.

No statement in this document is intended as a profit forecast or a profit estimate and past performance cannot be relied on as a guide to future performance. This document does not constitute or form part of any offer or invitation to sell or issue, or any solicitation of any offer to purchase or subscribe for any securities.

The companies in which Glencore plc directly and indirectly has an interest are separate and distinct legal entities. In this document, "Glencore", "Glencore group" and "Group" are used for convenience only where references are made to Glencore plc and its subsidiaries in general. These collective expressions are used for ease of reference only and do not imply any other relationship between the companies. Likewise, the words "we", "us" and "our" are also used to refer collectively to members of the Group or to those who work for them. These expressions are also used where no useful purpose is served by identifying the particular company or companies.

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Our sustainability communications

Our Sustainability Report 2021 forms part of Glencore's annual corporate reporting suite. It expands on the information provided in our Annual Report 2021 and details how we address our material sustainability risks and opportunities.

In addition to this report, we also publish an annual Modern Slavery Statement and Payments to Governments report, as well as regular updates on our activities via our website and social media platforms.

Further information on our stakeholder engagement activities is available in our 2021 Annual Report (Section 172 Statement on page 38) and on our website:

www.glencore.com/sustainability/
stakeholder-engagement

Designed and produced by Brunswick Creative
www.brunswickgroup.com

Useful links

Pathway to Net Zero: 2021 Progress Report

Sustainability Summary - 2020

Climate Report 2020: Pathway to Net Zero

Water microsite

Modern Slavery Statement - 2020

Payments to Governments Report - 2020

Latest Glencore financial reports

2021 production tables (Excel format)

2021 Resources and Reserves report

ESG A-Z